



UNIVERSITY
OF TASMANIA

THE GLOBAL SHORTAGE OF SHIP OFFICERS: AN INVESTIGATION OF THE COMPLEXITY OF RETENTION ISSUES AMONG AUSTRALIAN SEAFARERS

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DECLARATION OF ORIGINALITY

This thesis contains no material which has been accepted for a degree or diploma by the University of any other institution, except by way of background information and duly acknowledged in the thesis, and to the best of the candidate's knowledge and belief no material previously published or written by another person except where due acknowledgement is made in the text of the thesis, nor does the thesis contain any material that infringes copyright.

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DEDICATION

This thesis is wholeheartedly dedicated:

To God Almighty –unmatched grace, mercy and the breath of life.

To Prophet T.B. Joshua – a true servant of the Most High God.

To my biological father, Jacob Ofori Caesar – for all the pain that you went through for my sake; your life is such an inspiration.

To the memory of my late beloved mother, Gladys A. Kloteye Caesar – for all the priceless sacrifices you have made in my life and that of my siblings.

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ABSTRACT

The global shortage of ship officers is an issue receiving increasing attention as shipping companies consider how they will continue to operate their vessels in a safe manner. In particular, the issues of the recruitment of seafarers, their career progression to officer level, and their subsequent turnover due to the ease of mobility within the maritime industry have placed a greater emphasis on retention of this valuable resource. A review of the extant literature reveals that recurring wastage among cadets and senior officers compounds the shortage problem as the number of years spent at sea by the newer generation of ship officers reduces. This indicates the need for a greater understanding of the range of retention issues in order to prolong the number of years that ship officers spend onboard ships. Thus the primary research question for this thesis is: How can shipping industry employers improve the retention of ship officers?

This thesis found that the literature tends to pay little attention to the causes of the shortage of ship officers and even less to how it can be effectively addressed. This is also evidenced by a paucity of in-depth conceptual and empirical research focusing on the topic. Thus, this thesis investigates the current shortage of ship officers onboard ships. This is done by (i) identifying the factors predicting the movement of ship officers from ships to landside jobs; (ii) examining the major reasons for the shortage of ship officers; (iii) explaining the attrition process among ship officers; and (iv) assessing whether the strategies being used by shipping industry employers to retain ship officers are effective.

To effectively address the primary research question, this thesis uses an explanatory sequential mixed methods research design, consisting of a web-based survey of ship officers and a semi-structured telephone interview of senior managers of shipping industry employers in Australia. The web-based survey was sent to 305 ship officers through key gatekeepers within the Australian shipping industry. In total, 198 responses were received equating to a 65 percent response rate. For the semi-

structured phone interviews, the participation of 12 senior managers from a sample size of 20 representing a response rate of 60 percent.

The empirical results of the web-based survey of ship officers reveals four categories of factors that demotivate ships officers and consequently predict their turnover. These factors relate to the organisational, extrinsic, personal and industry issues within the environment in which seafarers practise their career. Personal issues account for more than two thirds of the reasons why ship officers may quit working onboard ships to pursue landside opportunities. The strong influence of personal factors on the movement of seafarers from ships to landside jobs signals the need for a greater understanding of the issue among industry employers. Separation from family and home was found to be one of the most important personal issues contributing to high turnover among seafarers. Other aspects of the four categories of factors causing turnover among ship officers are: limited communication with family, lack of opportunities for training and career progression, poor mentorship onboard and dissatisfaction with the employer. Thus, the moving of seafarers from ships to landside jobs is triggered by a combination of issues which may be personal, organisation-based or industry-related. This highlights the multidimensional aspect of the ship officer attrition problem. Consequently, it is very important for Australian shipping industry employers to adopt multiple approaches for the improvement of retention among their seafarers.

An analysis of the semi-structured telephone interview transcripts highlights complex retention issues, a lack of adequate training and lapses in industry regulations as the reasons for the shortage of ship officers. It was also found that Australian shipping industry employers mostly rely on high salaries, recreational facilities and good working conditions as strategies to retain their ship officers onboard.

Thus this thesis contributes to a reflective understanding of how Australian seafarers perceive their career and also indicates areas that may need to be improved to increase retention rates among ship officers. By combining the findings

of both the web-based survey and semi-structured telephone interviews, this thesis advocates that strategies capable of improving the attractiveness of seafaring and working onboard ships must be vigorously pursued by shipping industry employers. From an industry perspective, identifying and having a proper understanding of the factors that make seafaring less attractive is quite necessary to significantly improve the ability of shipping industry employers to attract potential people into a seafaring career. The comments of respondents from the web-based survey instrument suggest the premium placed on training by Australian seafarers. Specifically, financial assistance to complete training schedules is regarded as a key aspect of the support that Australian shipping organisations may need to provide for seafarers.

Additionally, this thesis demonstrates the need for a more definite and sustainable career path for seafarers. The key to achieving this is for Australian shipping industry employers to have a well-planned mentorship programme onboard where senior officers can pass their skill, knowledge and operational experience on to cadets and junior officers that may reduce attrition among cadets and other junior officers. The findings of this thesis also has policy implications for shipping companies with regards to the recruitment and retention of ship officers as it identifies key shortcomings within the existing human resource practices of industry employers.

This thesis highlights the need for a more responsible approach to the employment of seafarers. In the Australian context, the application of strategic human resource theories to the retention problem is a new approach. Other contributions from this thesis are the differences in the view of seafarers and employers on retention, the use of mixed methods approach and the introduction of the convergence and seafarer turnover models.

PUBLISHED PAPERS

In this thesis by monograph, the following the 11 papers were published in international journals and peer reviewed conferences from 2012-2016:

2015

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Caesar, L. & Cahoon, S. 2015, 'Training seafarers for tomorrow: The need for a paradigm shift in admission policies', *Universal Journal of Management*, vol. 3, no. 4, pp. 160-167.

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GLOSSARY

| | |
|-------|---|
| AMSA | Australian Maritime Safety Authority |
| AMC | Australian Maritime College |
| ASA | Australian Shipowners Association |
| BIMCO | Baltic and International Maritime Council |
| CPD | Continuous Professional Development |
| CSR | Corporate Social Responsibility |
| DIT | Department of Infrastructure and Transport |
| DP | Dynamic Positioning |
| EFA | Exploratory Factor Analysis |
| EOC | Employer of Choice |
| FPSO | Floating Production Storage and Offloading |
| GUI | Graphic User Interact |
| HRECs | Human Research Ethics |
| ISF | International Shipping Federation |
| ILO | International Labour Organisation |
| IMO | International Maritime Organisation |
| IOC | Industry of Choice |
| ISPS | International Ship and Port Facility Security |
| JDI | Job Descriptive Index |
| KMO | Kaiser-Meyer-Olkin |

| | |
|--------|---|
| LNG | Liquefied Natural Gas |
| MARPOL | Marine Pollution |
| METs | Maritime Education Training institutes |
| MLC | Maritime Labour Convention |
| MSQ | Minnesota Satisfaction Questionnaire |
| NCPS | National Centre for Ports and Shipping |
| OCIMF | Oil Companies International Marine Forum |
| OECD | Organisation for Economic Cooperation and Development |
| OHS | Occupational Health and Safety |
| OOW | Officer on Watch |
| PAF | Principal Axis Factoring |
| PCA | Principal Component Analysis |
| PRQ | Primary Research Question |
| SOLAS | Safety of Life at Sea |
| SPSS | Statistical Package for Social Sciences |
| SRQ | Secondary Research Question |
| STCW | Standards of Training, Certification and Watchkeeping |
| WHO | World Health Organisation |

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Despite the numerous notable changes in the shipping industry in the past 50 years, such as the emergence of flags of convenience (Couper 2000a), multi-cultural composition of ship crew and increasing automation of shipboard operations (Alderton 2004; Farthing & Brownrigg 1997; Leggate 2004); labour onboard ships remains a primary focus of industry stakeholders (McConville 2006). Since about 98 percent of global trade by volume is conveyed by ships (Branch 2006), the increasing volume of world trade leads to growth in the global merchant fleet (Marisec 2010). With this growth is an associated increase in demand for ship officers which cannot readily be met due to the long time frame involved in preparing cadets to become officers (BIMCO/ISF 2010; Dyer-Smith 1992). This coupled with poor human resource practices and operations-induced pressures (McLaughlin 2012) is not favouring the career preferences of current generation seafarers resulting in a shortage of ship officers in the shipping industry (Horck 2010a; Kundu, Malhan & Kumar 2007; McKay 2007b; Zaar & Hammarstedt 2012). There is a growing interest in the subject of labour shortage and mobility within the maritime industry; with Kirby (2011) stating that seafarers are the single most valuable resource of the industry from a practical perspective. Gekara (2009) for example, notes that the shipping industry is experiencing a shortage of trained and qualified officers to operate a rapidly expanding global merchant fleet. Similarly in Deloitte (2011), the shortage of qualified and well trained officers is recognised as an issue that is expected to become more significant not only in traditional maritime nations (countries initially recognised for nautical customs and traditions such as shipbuilding, ownership and training of seafarers such as the United Kingdom, Germany and Australia) but also on a worldwide basis.

The shortage of ship officers has many negative consequences for the shipping industry. In this era of globalisation (Miroshnik 2012) and opening up of developing countries (Bishop, Reinke & Adams 2011), seaborne trade has been growing in

volume except during periods of intermittent economic downturns such as the 2008-9 global recession (Kreinin & Plummer 2012). With the growing size of maritime trade, there is an inevitable need for ships to convey seaborne cargoes (Fernando 2012) from origin to countries where they are in high demand. Since ship officers will be needed for the safe navigation and operation of the vessels that carry these goods (Branch 2007), their shortage will prove counterproductive to the growth of the maritime industry and disastrous from a safety perspective. Furthermore, the availability of ship officers is not only necessary for the operation of a growing world fleet, but also plays a contributory role in the maintenance of a viable workforce for allied industries ashore (Gardner & Pettit 1999; Gardner et al. 2004; Lewarn 2012). Essentially, the demand for ship officers is a derived one which is highly influenced by demand for shipping services (McLaughlin 2012). Therefore, it is an issue that should strongly feature on the agenda of shipping industry employers.

The shortage of ship officers around the world is one that is well documented in the literature (BIMCO/ISF 2010; Cahoon & Haugstetter 2008; Cahoon, Haugstetter & Bhaskar 2010; Cockroft 2003; Fei 2009, 2011; Gardner et al. 2007; Gardner et al. 2001; Gekara 2009; Kokoszko 2006; Leggate 2004; Lewarn 2012; Li & Wonham 1999a); and was first authoritatively highlighted in the BIMCO/ISF study of 1990. The impact of the ship officer shortage is not only limited to the offshore aspect of operating ships. For instance, Gardner, Pettit and Thanopoulou (1996) expanded the knowledge on shipping expertise in light of the larger maritime skills base through an exposition of how flagging out of vessels to third world ship registers negatively impacts the availability of requisite labour to occupy landside maritime jobs in traditional maritime nations (Selkou & Roe 2002).

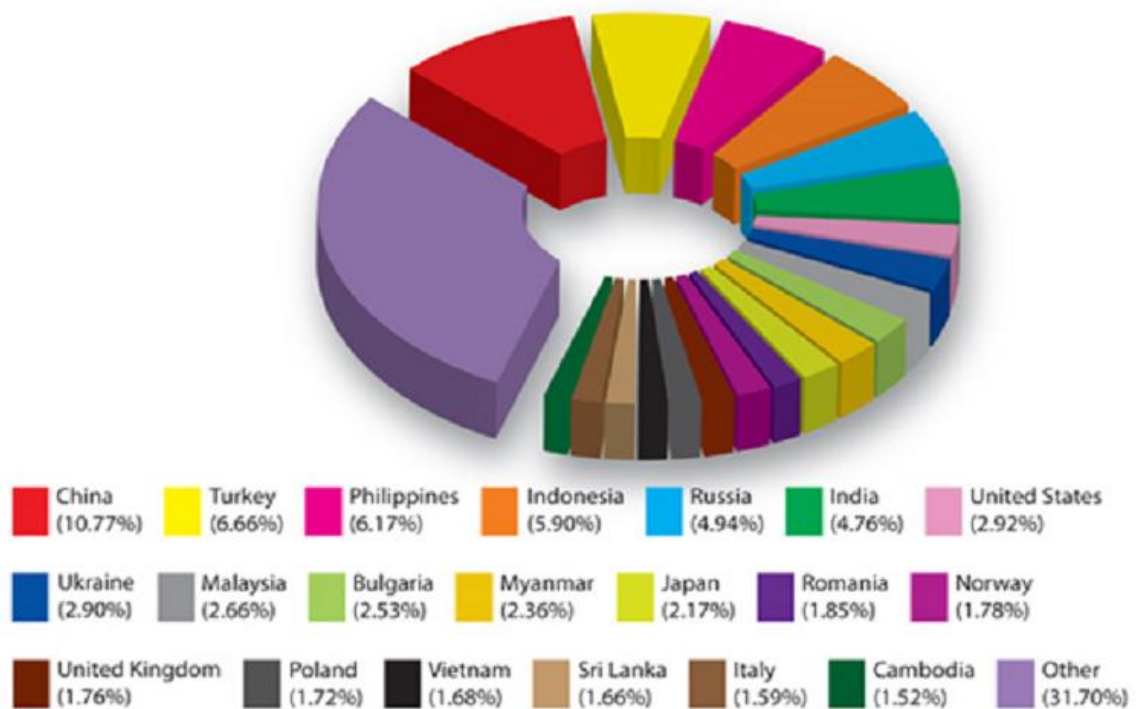
Discussions surrounding the shortage of ship officers appear to focus on numbers rather than identifying the categories of the skill shortage. The BIMCO/ISF (1990) study was the first to predict the shortage of officers with the turning of the century. Subsequent reports published every five years since then show an increase

in the worldwide shortage of ship officers (BIMCO/ISF 1995, 2000, 2005, 2010). In BIMCO/ISF (2010), the worldwide supply of seafarers was estimated at 624,000 officers and 747,000 ratings while demand stood at 637,000 officers and 747,000 ratings. These statistics suggest a global deficit of 13,000 officers. The figures given for the supply and demand for ratings are the same with no deficit or oversupply predicted. Competition to secure jobs onboard ships has been quite intense among ratings from non-traditional maritime nations (countries initially not recognised for nautical customs and traditions such as shipbuilding, ownership and training of seafarers such as India and Philippines) since the early 1990s due to their oversupply (Couper et al. 1999). Hence the current talent shortage in the shipping industry is limited to ship officers as the literature has not reported a shortage of ratings. Given that the latest BIMCO/ISF forecast in 2010 shows no surplus for ratings, it is more likely that future projections may show a short fall (Leong 2012). Even though there are different categories of ship officers such as deck officers and chief engineers, previous studies homogenously cluster them as one group (see for example, BIMCO/ISF 2010; Caesar, Cahoon & Fei 2013; De Silva, Stanton & Stanton 2011). The current study will also refer to both deck officers and engineers as ship officers.

In relation to the shortage of ship officers, Leong (2012) identifies a web of issues connected to changes in the sources of supply of seafarers. This, in addition to a complex range of retention issues is influencing the global shortage of ship officers. Thomas, Sampson and Zhao (2003) note there is a growing concern among the international maritime community about the overall need for additional qualified ship officers in the 21st century. Figure 1.1 and Table 1.1 provide a summary of the current supply of officers and ratings as given in the BIMCO/ISF 2010 Manpower Update report (BIMCO/ISF 2010). In Figure 1.1, non-traditional maritime nations from the Far East and other parts of Asia provide more seafarers when compared to traditional maritime nations such as the United Kingdom. This supports the view that non-traditional maritime nations are emerging as reliable stables for the training and supply of ship officers (Leggate 2004; Nigel 2008). Hence, countries

with little or no maritime tradition (such as Vietnam, India) are increasingly becoming sources of supply of ship officers (Eler et al. 2009). This kind of development is also being made possible by the desire among shipowners to reduce operational costs. For example, the salary of officers from emerging crew supply countries is relatively lower compared to that of their colleagues from traditional maritime nations (McLaughlin 2012). Table 1.1 also depicts the Far East emerging as an evolving supplier of ship officers when compared to the OECD countries who are considered as traditional sources of supply.

Figure 1.1: Worldwide supply of seafarers (officers and ratings)



Source: BIMCO/ISF Manpower 2010 Update (p. 9)

Table 1.1: Global seafarer supply by broad geographical areas in 2010

| AREA | CURRENT SUPPLY | | | |
|----------------------------|----------------|--------------|----------------|--------------|
| | Officers | % | Ratings | % |
| OECD Countries | 184,000 | 29.4 | 143,000 | 19.2 |
| Eastern Europe | 127,000 | 20.3 | 109,000 | 14.6 |
| Africa/Latin America | 50,000 | 8.0 | 112,000 | 15.0 |
| Far East | 184,000 | 29.5 | 275,000 | 36.7 |
| Indian Sub-Continent | 80,000 | 12.8 | 108,000 | 14.5 |
| All National Groups | 625,000 | 100.0 | 747,000 | 100.0 |

BIMCO/ISF (2010)

In the case of ratings (a general crew member on a ship that is not specifically allocated to engine or deck duties), the Far East is shown to be the leading supplier, with Africa and Latin America following closely. The BIMCO/ISF 2010 Manpower Update suggests there is a shift in the source of officer supply from the OECD countries with the Indian Sub-continent and Far East developing into future supply grounds. The same view is shared by Leggate (2004) and Branch (2007) who acknowledge that the Asian and Indian Sub-continent have emerged as strong contenders for the supply of seafarers, especially ratings. Even for the estimated number of seafarers available to operate the world fleet, the BIMCO/ISF 2010 report suggests that not all of them may be qualified and available to serve as ship officers.

Researchers have expressed numerous reservations about the BIMCO/ISF 2010 report despite the position it occupies as the primary source of reference for seafaring labour statistics. For example, Mitroussi (2008) argues how the idiosyncratic nature of the maritime industry as well as differences in the sources of data makes it difficult to portray a comprehensive analysis of labour statistics about seafarers. According to Wu, Shen and Li (2007) the credibility of data collected on seafarers is further reduced by poor industry practices where maritime authorities fail to update their respective databases to exclude seafarers who have been

inactive for long periods of time (Parlak & Yildirim 2011). Also, shipping companies often have their reports clustering shore-based workers and those onboard ships together. This further compounds the reliability of seafaring labour data and reports such as the BIMCO/ISF 2010 as contradictions and duplications occur in the statistics. Wu and Winchester (2005) provide evidence that there are significant differences in seafarer data collected from countries in terms of availability, quality and compatibility. Consequently, Li and Wonham (1999a) propose the need for an accurate and systematic worldwide method to gather data on seafarers.

The underlying reasons for the difficulty in capturing accurate statistics on seafarers can be regarded as issues endemic to the shipping industry. For instance, since seafarers work on contractual basis, surveys distributed to them over a period may ultimately not reflect the same results as some may be off duty at the time of the data collection. Nevertheless, the periodic reports produced by BIMCO/ISF remain a relatively reliable source of data on the global seafaring labour market in the absence of a more comprehensive alternative.

The Philippines and India have been singled out by Deloitte (2011) as major suppliers of seafarers due to factors such as: good English language skills, lack of attractive employment opportunities in other industries and the development of maritime training institutes in these countries. Africa seems to be left out in these developments. The question is whether other countries in Africa, having the same qualities as India and the Philippines, are able to replicate them in the supply of seafarers? Out of the 24 English speaking countries in Africa, ten have coastlines and reasonably high levels of unemployed graduates – conditions that can equally be harnessed to stabilise the global supply of seafarers. The idea of relying on developing countries to address the shortage of seafarers was discussed by McConville (1997) who suggests labour has always been a concern for shipowners and operators but there has been a tendency in the past for this concern to appear cyclical. The issue that impairs the practicality of relying on developing countries to deal with the shortage of ship officers is the language barrier. English,

according to Ljung (2010), is the *lingua franca* of the seafaring business but this poses huge communication problems to seafarers from non-English speaking developing countries; hence it serves as an entry barrier. By addressing the English language barrier, non-traditional maritime countries can become an unexploited source of supply for seafarers with a huge potential (Li & Wonham 1999a).

Most of the work in academia on the shortage of ship officers seems to be confined to the last decade (see for example, BIMCO/ISF 2010; Cahoon & Haugstetter 2008; Cahoon, Haugstetter & Bhaskar 2010; Fei 2009; Gekara 2009; McLaughlin 2012) but interestingly have not exclusively studied the underlying reasons for shortage. Currently, many shipping industry critics are arguing there is no shortage of ship officers. The crux of their argument is that the shipping industry is synchronously linked to the global economy (Stopford 2009) hence the demand for ship officers reduces in a shrinking global economy. A contracting global economy reduces the volume of cargo traffic and thus the number of ships required. This ultimately leads to reduced shipping activity which creates competition among seafarers for employment contracts and even their retrenchment (Cahoon, Haugstetter & Bhaskar 2010).

Contrary to the argument of shipping industry critics, forecasts by BIMCO/ISF (2010) suggest an impending acute shortage of ship officers due to anticipated long term growth in the size of the global commercial trading fleet and trade (Suri 2007). Relying on global economic depression to debunk the existence of shortage in officers is not a prudent approach to the problem as the world economy is a market that is highly characterised by cyclical booms and slumps (Stopford 2009); which has also become a natural part of the shipping trade (Sjöqvist & Sorocka 2011). Couper (2012) is of the opinion that the shortage of ship officers could rise from the estimated 13,000 given by BIMCO/ISF (2010) to 60,000 when the world economy returns to normal levels. If anything, the erratic economic cycles that have characterised the shipping industry suggests a need for employers to focus on measures that will sustain a continuous supply of ship officers. This is very

important given the ten years of time lag needed to prepare a cadet to become a ship officer (BIMCO/ISF 2010; Dyer-Smith 1992). Phillips and Edwards (2009) advocate that managers should keep recruiting during periods of economic downturn to keep talent channels open. The supply of ship officers to the global shipping industry therefore, is difficult to predict, adjust and manage, particularly as economic cycles become erratic. A deeper understanding of the reasons for the shortage of officers is therefore needed for employers to make informed decisions regarding the recruitment and retention of shipping talent.

As discussed earlier, the global shortage of ship officers is an issue receiving increasing attention as shipping companies consider how they will continue to operate their vessels in a safe manner. In particular, the issues of the recruitment of seafarers, their career progression to officer level, and their subsequent turnover due to the ease of mobility within the maritime industry have placed a greater emphasis on the need to improve retention among ship officers (Couper 2012; Deloitte 2011; McLaughlin 2012). Primarily, the movement of seafarers from vessels to landside jobs in ports and ship management establishments has been identified as a primary contributing factor to the global shortage of ship officers (Caesar, Cahoon & Fei 2013; Cahoon & Haugstetter 2008; Fei 2009; Gekara 2009). Thus the need to focus on ship officer retention has been informed by the findings (such as recurring wastage and reduction in the number of years spent at sea by officers) made in the existing literature that the shortage of ship officers is not necessarily influenced by low recruitment figures but rather by the early movement of ship officers to shore-based jobs. Shiptalk (2008) found in a survey of 229 serving seafarers that approximately one third intended to make seafaring a lifelong career, while two thirds indicated they would move ashore as soon as circumstances permitted; citing fewer career prospects and the long time spent onboard away from family as their main reasons. Also, Ljung (2010) notes that the number of years spent at sea by ship officers has reduced in recent times with modern day seafarers working about seven years or sometimes even less and then departing for jobs onshore. Statistics from Denmark suggest that many ship officers are retiring

from sea at the early age of 40 to take up landside maritime jobs (McLaughlin 2012). Early retirement of ship officers creates critical vacancies at the helm of ships which industry employers may not be able to fill immediately as it takes an average of ten years to prepare cadets to become ship officers (BIMCO/ISF 2010; Dyer-Smith 1992).

Similarly, Fastream (2012) identified that most ship officers leave to landside jobs within ten years; with some becoming high earners due to the rapid career progression they enjoy onshore. In the United Kingdom for instance, Gardner and Pettit (1999) found that people with seafaring skills and experience are preferred for 70 percent of landside maritime jobs with 87.5 percent of the positions going to ex-ship officers. According to Barnett et al. (2006), this high preference of having ex-seafarers fill landside maritime jobs is due to the excellent knowledge of ships and maritime procedures as well as having leadership potential. Thus there is the need for an improvement in retention in order to prolong the number of years that ship officers spend onboard vessels before moving to landside jobs. This is because, the era where people will want to have seafaring as a lifetime career is gradually phasing out. Structural changes in the industry such as advanced handling technology, reduced time in port, and the remote location of ports away from city centres have changed the very fabric of life at sea. In some cases, large vessels may spend only 24-36 hours in port thus providing little time for the much sought after shore leave (Deloitte 2011; Oldenburg & Jensen 2012). When coupled with the use of a skeletal ship crew on-board and increased workload, seafaring is becoming less likely to be a career of adventure (Dimitrova & Blanpain 2010). Whereas going to sea was to see the world, the new mantra is to go to sea to see the sea (Cahoon, Haugstetter & Bhaskar 2010).

According to BIMCO/ISF (2010), recruitment will continue at roughly the same rate as observed over the previous decade but the wastage rates (net loss rates from the industry) will be higher by around one percent per annum. Fei (2009) notes that for many, working in the shipping industry is not a lifelong occupation; rather an

interlude in their occupational life or as McLaughlin (2012) suggests, it is a transitory form of employment. Findings made in China by Kong and Ruan (2001) also depict an increasing trend of attrition reported among graduates within five years after entering the seafaring industry. This suggests that the high mobility among seafarers is not only limited to ship officers. Recent literature also revealed recurring wastage among cadets (Gekara 2008, 2009; Gould 2010). A common theme therefore is that the retention of officers is an issue of concern in the industry and one that requires further research.

1.2 PROBLEM STATEMENT

There is consensus in the literature of the high mobility among both cadets and ship officers (Fei 2009; Gekara 2008, 2009). This development is quite inimical to maintaining a sustainable supply of skilled labour to meet fluctuating demands within the shipping industry. Considering that increasing mobility among ship officers creates labour shortage and loss of critical knowledge (Caesar, Cahoon & Fei 2013; Cahoon & Haugstetter 2008; Fei 2011), it is important to identify the factors responsible for this ship-to-shore movement and adequately address the entire spectrum of challenges. Adequate understanding of the attrition process among ship officers is thus needed if pragmatic solutions are to be developed to improve retention.

The current study investigates the shortage of officers onboard ships by examining their mobility from vessels to landside jobs and identifying the factors that significantly influence turnover among them. To address the shortage of ship officers, the literature revealed a need for employers within the maritime industry to focus on retention (Couper 2012). According to Phillips and Edwards (2009), the 21st century is an era of less company loyalty and increased job switching. The shipping industry is not excluded from such an observation (Cahoon & Haugstetter 2008). Similarly, Deloitte (2011) emphasises the ability to retain a sufficient number of skilled ship officers to staff and operate vessels as the growing concern for many companies in the shipping industry.

1.3 OBJECTIVES OF THE STUDY AND RESEARCH QUESTIONS

The primary goal of this research is to examine the mobility of ship officers from vessels to landside jobs by identifying the factors that significantly influence turnover among them and propose strategies to improve retention of officers. Hence, this thesis is guided by the following objectives:

- Explore and explain the attrition process among ship officers.
- Propose a pragmatic framework to guide practitioners to address the shortage of ship officers through improved retention.
- Identify the operational challenges that confront shipping industry employers with regards to the retention of ship officers.

In view of the research problem and objectives discussed above, the following primary research question (PRQ) has emerged as being fundamental to the study:

Primary Research Question (PRQ):

PRQ: How can shipping industry employers improve the retention of ship officers?

To adequately explore the primary research question, the following secondary research questions (SRQs) are investigated:

Secondary Research Questions (SRQs):

SRQ1: What factors determine the movement of ship officers from ships to landside jobs?

SRQ2: What are the major causes of the industry-wide shortage of ship officers?

SRQ3: What are the measures being used by shipping industry employers to address the shortage of ship officers?

1.4 JUSTIFICATION OF THE STUDY

Past research on seafaring tends to focus on gathering data from industry employers through interviewing and surveys without giving due consideration to the differences that exist between the perception of seafarers and their employers

(Thai & Latta 2010). To this end, Kokoszko (2006) and Kokoszko and Cahoon (2007) recommended that future research on the recruitment and retention of seafarers should include the perspective of seafarers themselves. Thus there is need for a study which uses an appropriate methodology to accommodate the views of both ship officers and their employers on the issue of high mobility to landside jobs and how the entire attrition process occurs.

From a theoretical perspective, there is the need for a study which applies strategic human resource and employer branding models to the global ship officer shortage problem. This can be regarded as an addition to the growing body of literature on the shortage of ship officers. Also, such a theoretical approach is necessary as it investigates the shortage of ship officers from a new perspective – by examining how attrition (turnover) may contribute to the shortage of global shipping talent. The literature suggests that issues influencing the shortage of ship officers may be related more to retention hence a need to address it through the application of strategic human resource theories. Furthermore, Couper (2012) suggests a need to focus on the retention of ship officers as what is clearly lacking among maritime industry employers is an effective retention policy.

Practically, the current study has policy implications for shipping companies with regards to the recruitment and retention of ship officers by identifying lapses within existing human resource practices of industry employers. Recommendations given after arriving at an improved understanding of the attrition process among ship officers can serve as a checklist for managers and policy makers who are directly and indirectly connected to the hiring and retention of ship officers. Given that poor human resource practices is reported among shipping industry employers (see for example, Donner 2008; Magramo et al. 2010b), the study advocates the need for an effective career approach to the recruitment and retention of officers in order to increase satisfaction, loyalty and commitment with the aim of reducing attrition rates among ship officers.

Understanding how to improve retention among ship officers is beneficial to the entire shipping industry as it may help alleviate the global shortage of ship officers and improve the negative image issues affecting the industry to decisively build a more attractive brand that will have positive implications for future recruitment efforts. There is the need for an approach capable of increasing the number of years that ship officers spend at sea by improving employee satisfaction and loyalty (Azliza 2010; Bohti & Talib 2009; Haka et al. 2011; Helmreich, Wilhelm & Runge 1981; Kronberg 2011; Lang 2011; Wall 1980). Such an approach should equally be designed to address the pertinent image issues affecting the shipping industry. Also, the high cost of training ship officers makes retention a cost effective option. The current state of knowledge about the early ship-to-shore mobility among the new generation of ship officers is shrouded in much ambiguity and this clearly warrants further investigation. It is against this background that the present study is undertaken. The shipping industry has lagged behind in finding a more workable and lasting solution to the shortage of ship officers. Methodically, the research helps explain the attrition process among ship officers better. What is needed is a solution to the ship officer shortage as the extant literature (see for example, Leggate 2004; Leong 2012) is heavily skewed towards discussion of the problem without giving due attention to how it should be addressed.

1.5 RESEARCH STRUCTURE AND OUTLINE

The study is organised into seven Chapters using a conventional format. The current Chapter is introductory. It discusses among other things the problem statement, objectives and justification of the study. The shortage of ship officers was discussed with early mobility to landside jobs emerging as a major contributing factor.

Chapter two discusses contemporary issues surrounding the recruitment of staff with a specific focus on seafarers. The recruitment and employment of seafarers in the context of globalisation is examined. It also explores relevant literature on the reasons why people take up careers at sea with particular reference to the role of major industry stakeholders in the training and recruitment of seafarers. A

distinction is then made between ship officers and ratings. Also, the career of seafarers is discussed with specific focus on how factors such as age, sex and ethnicity are shaping the crew supply and demand landscape.

Chapter three explores relevant literature on the theory of staff retention and turnover. The existence of a relationship between constructs such as employee satisfaction, loyalty, organisational commitment and long periods of service is argued and then linked to the increasing rate of mobility among ship officers. In this Chapter, the reasons why the retention of seafarers is becoming difficult is also discussed with an identification of factors that are potentially influencing the mobility of ship officers to landside jobs. The Chapter then concludes with a review of literature on the prevailing dynamics within seafaring that have the potential to increase turnover rate among ship officers thereby compounding the identified shortage problem.

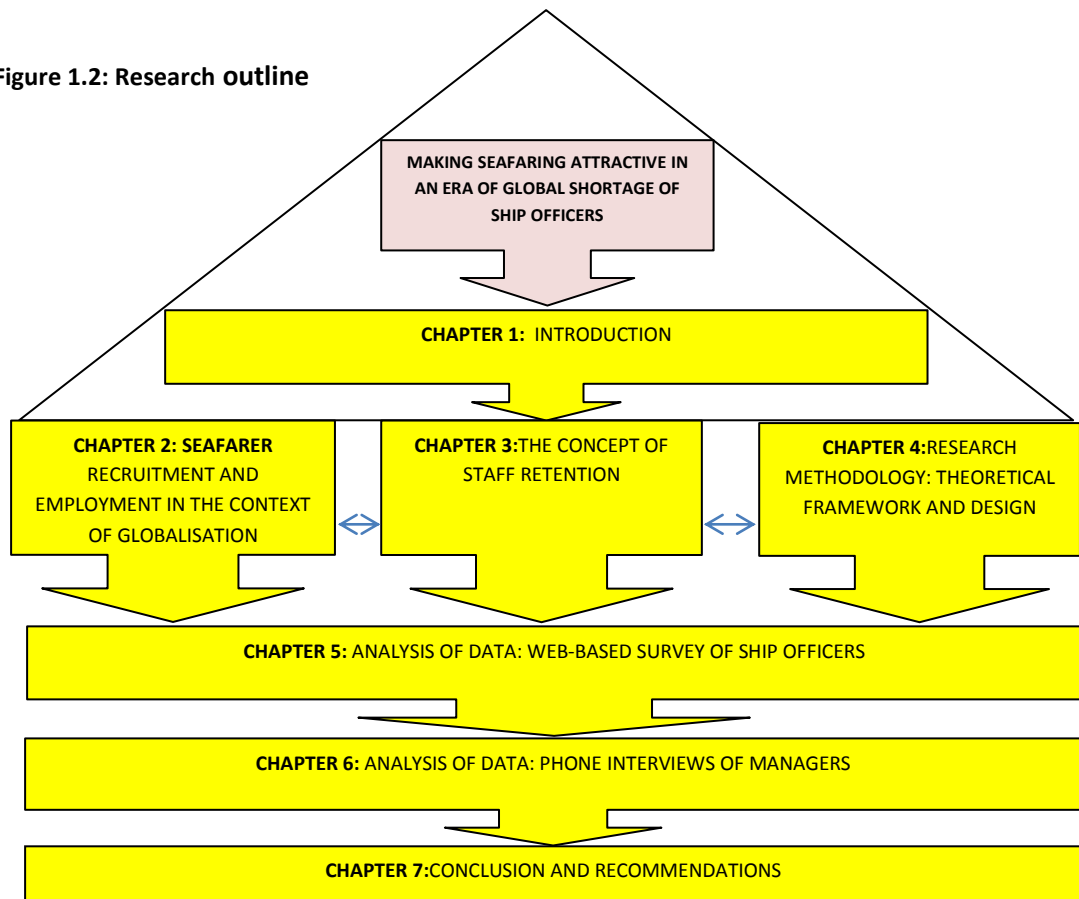
In Chapter four, the methodology, theoretical framework and research design is outlined. Three theories related to the attraction, motivation and attrition of employees from the reviewed literature are used to build a model that could be applied to ensure the attraction and satisfaction of ship officers in the context of the shipping industry. The Chapter explains the type of data used for the study, how data is gathered, the target population, sampling techniques and sample size, as well as the justification of the methods and approach of the study.

Chapter five analyses quantitative data gathered from the web-based survey of ship officers and presents the findings. In essence, all data gathered are discussed and linked to the findings from the literature review Chapters.

In Chapter six, qualitative data from the phone interview of senior managers of shipping industry employers is analysed and the results are linked to findings made from the web-based survey and extant literature in order to adequately explain the attrition process among ship officers.

Chapter seven summarises the findings made from both the web-based survey of ship officers and the phone interview of senior managers of shipping industry employers. The Chapter ends with recommendations for further research. Figure 1.2 provides an outline of the study with an emphasis on how the Chapters are linked to each other.

Figure 1.2: Research outline



Source: Author

1.6 SUMMARY

The background of the study suggests a shortage of ship officers exists despite the differences in projections given by the major sources of reference (see for example, BIMCO/ISF 2010; Drewry 2009). Although critics often rely on the global economic downturn to question the existence of the shortage, the cyclical nature of the shipping industry shows that the problem is a recurring one which demands a workable solution regardless of the economic climate. Furthermore, the volume of

maritime trade has been increasing steadily over the last century with a corresponding growth in fleet size. It was also suggested that the growing shortage of ship officers is primarily influenced by their early exiting or mobility to landside maritime jobs and hence the need to focus on retention in order to address the problem. The problem statement was identified with a justification for the research. The next two Chapters examine the extant literature on the subject matter.

CHAPTER 2: SEAFARER RECRUITMENT AND EMPLOYMENT IN THE CONTEXT OF GLOBALISATION

2.1 INTRODUCTION

This Chapter begins with the concept of staff recruitment by discussing the factors that fundamentally constitute best practice recruitment within mainstream human resource management. This includes a discussion of the importance of recruitment to the existence of companies and the impact of changes in domestic and international markets on recruitment practices. The Chapter also provides an overview of the present day practices with regards to the recruitment of seafarers and their employment in the context of globalisation. Furthermore, the shortcomings of current recruitment practices among shipping industry employers is discussed with a recommendation for the need to adopt proactive recruitment policies in the recruitment of seafarers. The concluding parts of this Chapter reviews factors that influence the supply of and demand for seafarers. It also discusses the recruitment strategies that the shipping industry employers may need to consider to achieve a sustainable supply of seafarers.

2.2 THE CONCEPT OF STAFF RECRUITMENT

Staff recruitment can be defined as the “practices and activities carried out by the organisation with the primary purpose of identifying and attracting potential employees” (Barber 1998, p.5). Approximately a decade later, the recruitment of staff has grown into a strategic function for most organisations. As Orlitzky (2007) explains, staff recruitment is no longer only the attraction and selection of people to fill vacancies but rather finding the right kind of people from the most appropriate source using an effective communication strategy. Thus strategic recruitment should not stop at attracting the right people but also investing in them by training and education to achieve employee satisfaction and commitment (Huang, Huang & Chiu 2011). Essentially, companies need to strive to recruit talent that will help them stay competitive (Griffin & Moorhead 2011; Ryan & Delany 2010; Snell & Bohlander 2012). Since the environment in which organisations operate is

constantly changing (Nikandrou & Panayotopoulou 2012), the recruitment function should be tailored towards the hiring of the right people to help meet both the strategic short-term and long-term corporate goals (Holbeche 2013). Consequently, there is the need for precision in the selection of staff amidst the changing business environment and growing globalisation of labour (Taran & Geronimi 2003; Warner 2002). This need is even more relevant in the shipping industry due to flag state regulations and other institutional practices (Progoulaki & Theotokas 2010; Stopford 2009; Wright 2012). For example, regulations and institutional practices such as the poaching of officers make the seafarer labour market more volatile (Lobrigo & Pawlik 2015; Magramo et al. 2010b).

To achieve the needed accuracy in staff selection for organisations, the past 100 years have witnessed the emergence and application of scientific psychological principles to address recruitment challenges (Vinchur & Bryan 2012). Recruitment is an activity that comes with the risk of selecting inappropriate talent (Harvard Business Review 2011; Rath 2011). The selection of unsuitable people may lead to increased administrative cost for organisations. For instance, managers may not be aware that people recruited through referrals are less likely to leave the organisation compared to those sourced through job ads. High mobility which has severe cost implications has been reported among the latter category of job applicants (Rynes, Brown & Colbert 2002). Hence, strategies are needed by firms to improve the selection of potential employees to avoid unnecessary costs associated with the wrong matching of candidates to jobs (Larson et al. 1998). Another argument is that efforts must be made to ensure an effective recruitment system since the way an organisation recruits can influence employee performance and turnover rates (Breaugh 2012).

Recruitment as an organisational exercise can be triggered by two main phenomena: the movement of existing staff to another company or industry (Arthur 2001) and business growth (expansion) which may lead to the creation of new departments, mergers and acquisitions and entry into new markets (Collings &

Scullion 2012). All these may precipitate the need for replenishment of an organisation's human resource base. Firms need to devise effective recruitment strategies toward the seamless supply of talent given the increase in competition for skilled labour within the global labour markets (Wilden, Gudergan & Lings 2010). Abella (2006) maintains that the competition for skilled labour relatively differs in intensity on an industry-by-industry basis. This may be due to the prevailing labour shortage – which could be the result of a low number of entrants or a high turnover rate among employees (Cappelli 2005). It is argued in Holland, Sheehan and De Cieri (2007) that in industries where the shortage of skilled labour is on the rise, organisations need to have a strategy that gives pre-eminence to the deployment of human resource development as a tool for competition. The understanding is that skilled labour scans the market for options (organisations) that appear attractive, especially within the pharmaceuticals, construction and information technology sectors where there are shortages in the supply of skilled labour (Holbeche 2013). Consequently, industries such as seafaring whose image may be less attractive are struggling to attract young people in developed nations (McLaughlin 2012).

For organisations to be successful in their competition for skilled talent, they will need to rely on effective labour recruitment practices and strategies. Over the past two decades, research literature on staff recruitment has portrayed what should be deemed an ideal recruitment strategy for organisations in the attraction and selection of staff (Hiltrop 1999; Hurrell & Scholarios 2011; Larson et al. 1998; Rothwell 2010; Schweyer 2004). Even though most of these strategies are being exploited by organisations, implementation gaps exist due to the misgivings human resource practitioners have about research findings on staff selection (Ryan & Tippins 2004; Rynes, Brown & Colbert 2002). Thus, research on recruitment may not necessarily be accepted by human resource managers. This might have given birth to the differences in hiring practices across industries (Orlitzky 2007).

To stay competitive by attracting skilled labour in a highly globalised world, researchers have developed a diverse range of theories that can be employed by companies (Breaugh 2008; Holland, Sheehan & De Cieri 2007). Over the last decade, the concept of employer branding is touted as a strategic tool that relies on psychological, economic and functional reward systems to guarantee organisations access to skilled employees (Branham 2001; Thorne 2004). According to Phillips and Edwards (2009), employer branding may primarily transform organisations into an employer-of-choice; a kind of talent magnet (Robak 2007). This will mean an adjustment in certain practices and norms to change the external perceptions of people about a particular company. Even though a conventional marketing concept, employer branding has gained popularity in human resource practice with almost seven in ten organisations reporting to using it as a strategy to gain the loyalty of existing employees and access to skilled applicants (Holbeche 2013). Understanding the expectations of potential staff is crucial to the success of any employer branding strategy adopted by an organisation. With an increasing trend in outsourcing of the recruitment function however (Susomrith & Brown 2013), ascertaining the aspirations of potential employees might become a tricky issue for human resource managers. Thus it is becoming increasingly important that the recruitment and selection process is tailored to gather information on candidates to adequately understand their expectations and simultaneously project an attractive image of the organisation to job candidates (Holbeche 2013).

Aside from employer branding, other writers (such as Berry & Parasuraman 1992; Papasolomou-Doukakis 2003) also advocate the application of internal marketing principles (which also forms part of the image branding marketing theories) for the recruitment and management of company staff. In this approach, firms are encouraged to focus on high employee satisfaction and motivation as a means of ensuring good customer service and attracting potential employees. There are other researchers (see for example, Drake, Gulman & Roberts 2005; Varey & Lewis 2000) who strengthened the case for internal marketing by suggesting that, it improves business performance and employer branding and builds employee

loyalty. Perhaps this assertion of the dual role of internal marketing demonstrates an existing link between staff recruitment and retention. Research (such as Clayton 2006; Laura 2010; Rothwell 2005, 2009, 2010; Rothwell & Kazanas 2003) suggests the existence of a relationship between the hiring and retention of people. Chapter three of this thesis further explores the nature of the relationship between these two human resource activities.

The foregoing discussions on staff recruitment appear to highlight certain key issues relevant to achieving effective hiring practices among organisations. It is important to understand how these issues are being applied in the shipping industry to identify any differences in the general human resource approach and what is practised among shipping industry employers. The next section focuses on the environment in which seafarers are recruited, the recruitment process and practices and the lapses in recruitment practices among shipping industry employers.

2.3 THE DYNAMICS OF SUPPLY AND DEMAND

The seafarer labour market is quite volatile due to the dynamic nature of the environment in which seafarers are recruited. Principally, fluctuations within the world economy and globalisation of the shipping industry create many challenges which hinder the effective recruitment of seafarers. This leads to poor recruitment practices among shipping industry employers thereby prompting a need for the adoption of mainstream human resource strategies to ensure a seamless supply of seafarers. The challenges and mechanics of recruiting seafarers are discussed in this section.

2.3.1 Recruitment of seafarers– The environment, practices and shortcomings

To effectively understand the dynamics of recruitment among shipping industry employers, one of the important major issues is to have a better insight into the changes occurring within the environment in which seafarers operate. Some of these changes are both directly or indirectly influencing the hiring practices of shipowners and other organisations engaged in the recruitment and training of seafarers.

2.3.1.1 Changes in the seafaring environment

The seafaring industry has been through tremendous changes over the past century (Parlak & Yildirim 2011). The most notable of these changes are the shift to flags of convenience (Llácer 2003), outsourcing of operational functions to third parties (Bloor & Sampson 2009; Vaxevanou, Konstantopoulos & Sakas 2012), the emergence of multinational crew onboard ships (Kahveci, Lane & Sampson 2002) and reduced crewing levels (Horck 2006; Sampson & Zhao 2003; Stoyanov 2009). These changes are mostly driven by economic and technological factors (Bloor, Thomas & Lane 2000). Many of the changes on the seafaring landscape are the end products of globalisation (Gould 2010). In Couper (2000a), the various degree of changes that have taken place with regards to maritime labour and shipping from the 1950s is categorised into two: technological advancement (large vessels and specialised ships with lowered manning scales) and a move from national-based to global policies (recruitment of labour from developing regions and flag of convenience registration). The emergence of flags of convenience for instance, opened up the global labour market of seafarers (Bloor, Thomas & Lane 2000) and influenced shipowners to shift their recruitment efforts and vessel registration to regions where cheap labour is readily available (Lillie 2005). As these flags are unable to effectively regulate the activities of ships registered under their jurisdiction (Alderton & Winchester 2002; Couper 2000a), the working rights of seafarers is very often trampled upon (Rodríguez, Portela & Carrera 2011). The most common complaints levelled against flags of convenience as per the abuse of the rights of seafarers include: poor working conditions onboard, abandonment by shipowners, denial of medical and shore leave, late payment or underpayment of crew, deprivation of duty tour breaks and victimisation of seafarers who lodge complaints against employers (Couper et al. 1999; Roberts 1998).

As employers and buyers of labour within the maritime industry (McLaughlin 2012), the employment practices of shipowners has been one of the factors driving change in the seafaring labour market over the years (Belcher 2003). A typical example can be made of shipowners switching to open registries which further led to the

globalisation of the crewing function and recruitment of cheaper labour (Alderton & Winchester 2002; Egiyan 2002; Li & Wonham 1999b; Silos et al. 2012). This decision of shipowners to recruit seafarers from developing regions is occasioned by the interaction of many factors. For instance, the high age profile of OECD ship officers (Whitlow 1999) and emergence of new seafarer supply countries has given birth to a trend where crew, especially ratings are sourced from the Far East and the Indian Sub-continent (Anner et al. 2006; Lillie 2004; Lillie 2005; Mitroussi 2008). This is confirmed in the work of Silos et al. (2012) which also found that unfavourable working conditions onboard ships have led to dwindling interest in the seafaring profession among inhabitants of OECD countries (Magramo & Gellada 2009; Zaar & Hammarstedt 2012). Thus, industry employers are shifting attention to new seafarer supply countries for their crewing needs (Alderton et al. 2004; Alderton & Winchester 2002; Leggate 2004). Also, McLaughlin (2012) is of the opinion that the increasing demand for seafaring labour from non-traditional maritime nations is fuelled by a strong desire among shipowners to reduce operational costs. DNV (2004) noted that even though an increasing number of non-OECD countries are beginning to supply ship officers, the demand for competent officers far outweighs supply.

Thus notable changes have taken place in the seafarer labour market over the past century (Alderton et al. 2004; Leong 2012). These changes could probably be the main reason for the different recruitment practices among the employers of seafarers. Shipping industry employers are now able to source for multicultural crew to form a ship's complement from many countries and regions using a worldwide network of dedicated crew sourcing agencies (Leong 2012).

According to Parlak and Yildirim (2011), most of the changes that have taken place within the seafarer labour market created problems such as instability of the labour market, deterioration of working conditions onboard vessels and a globalised seafaring labour force (Wu & Yao 2011). Wu and Winchester (2005) further notes that theoretically, as the seafarer recruitment market has become global in essence,

it should mean employment opportunities for all seafarers but this is not the case as it is shaped by interactions between national and global labour markets (Borovnik 2004; Leggate 2004). At times, such interactions serve as a barrier to the geographical mobility of ship officers. For instance, McLaughlin (2012) explains the lack of English language skills, age, health and working terms and conditions as notable obstacles to the recruitment and migration of seafarers in the international maritime labour market. English language however may not be an entry or migration barrier to Filipino seafarers as the early influence of American colonial maritime connections ensured that many of them are able to effectively communicate in English (Hand 2001; McKay 2007b).

The changes taking place in the seafarer labour markets are also due to the globalisation of the shipping industry. Hayashi (2001) posits that due to this globalisation (Alderton et al. 2004; Kahveci & Nichols 2006; Paixao & Marlow 2001; Sampson & Schroeder 2006), grievances such as underpayment or non-payment of salaries, poor onboard working conditions and crew abandonment have grown common among seafarers (Couper et al. 1999). For instance, seafarers from developing countries are usually paid below what they should earn and work more than they should. Specifically, issues such as the late payment of wages create unhappiness which often leads to maritime labour agitations and equally have negative consequences for the families of seafarers back home (Couper et al. 1999). Hence, globalisation of the crewing function has two aspects – accrued savings in operational costs for shipowners due to access to cheap labour (Gekara 2008, 2012) and labour-related challenges (DeSombre 2003; Lillie 2004). Thus, the globalised nature of the industry means that the need to attract highly qualified people has been subjected to significant pressures (McLaughlin 2012; Mitroussi 2008). Consequently, attempts by shipowners to gain relief through multinational crewing, technology and reduction in manning levels has generated more questions than answers for operational safety and work life balance (Bloor, Thomas & Lane 2000; Håvold 2007).

In terms of the working environment of seafarers, there are many changes emerging, particularly in the areas of ageing, gender and culture. As an occupation that is highly demanding (Bridger & Bennett 2011; Louie & Doolen 2007) with burdensome lifestyle implications (Gould 2010), understanding the age dynamics within the global seafaring labour population is crucial as the general demographic differences denotes varying expectations that needs to be considered by companies actively engaged in the hiring of seafarers. The demographic changes and disparities among seafarers means diverse expectations can be found among Generation X and Generation Y workers (Camille & Nicole 2011; Glass 2007; Paul 2004). Generation X workers are those born between 1965-1977 whereas those in Generation Y are born between 1978-1994 (Cotten 2007). The differences in the expectations of these generations create human resource challenges for employers as previous employee management practices are inadequate for the current generation and beyond (Kowalewski, Moretti & McGee 2012). An invisible, yet potent aspect of the demographic disparities seen in today's workplace is the differences that exist in expectations. Studies in shipping (see for example, Caesar, Cahoon & Fei 2013; Cahoon & Haugstetter 2008) have shown that the expectations of Generation X seafarers are not the same as that of Generation Y. This suggests that human resource managers of shipping companies need to revise the strategies they use for the recruitment of seafarers since employees have diverse expectations as per their age groups (Glass 2007). In this context, Shantanu (2010) explains that shipping industry employers are making a mistake by using old methods that were applied to Generation X seafarers to cater for the needs of Generation Y seafarers.

Ethnic and cultural vicissitudes constitute one of the key areas experiencing change in the working life of seafarers. This is an area of concern since cultural issues come with a need for effective management of racial differences among the modern day crew onboard ships (Parlak & Yildirim 2011). According to Bocanete and Nister (2009), cultural issues in the maritime industry could be categorised as native, ethnic, language based, national, racial or based on religious beliefs and they have become an important area of concern in recent times; significantly influencing the

recruitment policies of shipping industry employers. For instance, on vessels with Scandinavian masters, there is often a difficulty with regards to promotion of junior officers (Zaar & Hammarstedt 2012). Also, the modern day crew composition is primarily multi-ethnic and positions within the higher echelon onboard ships are usually given to seafarers from developed nations, with their counterparts from non-traditional maritime nations occupying the lower ranks (Lane et al. 2002). Hence cultural issues if not handled well have negative ramifications for the attraction and recruitment of people into the shipping industry. Eler et al. (2009) for instance, provides evidence that reluctance on the part of shipowners from traditional maritime nations to promote seafarers from emerging crew supply grounds such as the Philippines to the rank of officers; constitutes one of the key cultural issues responsible for the global shortage of ship officers. Also, cultural issues have become a hindrance in the employment of women onboard ships belonging to shipowners who may not have it as their policy to engage them onboard (Horck 2010a). This was found to be common among Japanese shipowners who for cultural reasons do not engage the services of women seafarers (Magramo & Eler 2012). In contrast, the employment of women as deck officers and engineers onboard ships has gained much ground among Scandinavian and certain European shipowners (Belcher 2003; Horck 2010a) with Sweden and Denmark being the most progressive (Couper et al. 1999).

The complexity of managing multicultural crew onboard ships dictates that shipowners and other recruiters of seafarers should introduce measures that can improve shipboard communication to avoid maritime accidents (Horck 2010b). Maritime accidents constitute an obstacle to the attraction and recruitment of people into seafaring (Cahoon, Haugstetter & Bhaskar 2010; MarineBuzz 2008). In Horck (2008) it is explained that maintaining a multicultural crew complement can have a costly ending for shipowners as communication breakdown, which is commonly found among such crew (Horck 2005; Loginovsky 2002; Moreby 1990; Theotokas & Progoulaki 2007), increases the occurrence of maritime accidents (Bocanegra-Valle 2010). In addition, Couper et al. (1999) is of the view that

differences in language, race, level of education and cultural disparities negatively impact communication and the entire shipboard working environment. This in turn compounds the problem of isolation among seafarers onboard ships (DNV 2004). Sampson and Zhao (2003) concluded that effective communication among the ship's crew is instrumental in the maintenance of safety standards onboard.

Due to the search for balance between revenue and operational costs, shipowners seem to have little option; hence their reliance on a multicultural crew complement which may traditionally consists of officers emanating from the traditional supply nations and the others (ratings) coming from the Philippines, Far East or the Indian Sub-continent (Branch 2007). There is growing research (for example, Bloor, Thomas & Lane 2000; Kahveci & Sampson 2001) on the challenges that come with ethnicity among seafarers. Principally, a multicultural crew may create onboard communication challenges which could result in accidents. This may equally cause isolation, stress and boredom among seafarers (Horck 2006, 2008; Johnsen et al. 2012). All these could precipitate many human resource challenges for shipping industry employers.

In a global labour market such as shipping (Alderton et al. 2004; Gekara 2008; Leong 2012), multilingual crews without a common culture may contribute to feelings of isolation and other mental health problems (Bloor, Thomas & Lane 2000). Isolation is recounted in Rodriguez-Martos (2010) as one of the key emotional factors impacting seafarers today; which leads to family discord and deprivation of participation in community life (Thomas & Bailey 2009). The problem may further be compounded because of the denial of shore leave coupled with a skeletal crew onboard (Horck 2005). Devanadera and Espiritu (2003) explain that due to cultural differences, crew members may misconstrue normal behaviours from colleagues who do not share the same ethnic background with them as being offensive and this can lead to tensions onboard. Table 2.1 gives an overview of the negative side effects of a multicultural crew. Apart from the impact on seafarers themselves, the

dynamics of a multicultural crew may at times constitute an obstacle to maritime safety and the effective fulfilment of regulatory requirements.

Table 2.1: Negative aspects of multinational crew complement

| ITEM | DESCRIPTION |
|---|--|
| INSPECTION CHALLENGES | Vetting inspectors tend to pay special attention to vessels with a multicultural crew complement |
| MARITIME ACCIDENTS AND INCIDENTS | Poor communication degenerates into errors and this serves as a good recipe for all forms of maritime accidents and has been the cause of many |
| ISOLATION | Less communication due to language barrier and this breeds boredom as well as stress |
| HUMAN RESOURCE CHALLENGES | Different HR practices within a single company to satisfy the different crew nationalities |
| INTERPERSONAL FRICTIONS AMONG CREW | Every day onboard communication hurdles fuelled by cultural differences and inherent language deficiencies breeds personal clashes among crew. This has significantly contributed to cadet attrition in recent times |

Source: Adapted from Horck (2006, 2008, 2010b)

Another aspect of multi-ethnicity in crewing is found in the differences in service contracts given to crews (Lane 2004); which are evident in the diverse salaries as well as employment terms (Branch 2007). There are differences for instance between the pay structure of seafarers from western countries and other parts of the world (Bloor, Thomas & Lane 2000; Lane et al. 2001; Silos et al. 2012; Thomas, Sampson & Zhao 2003). A proper understanding of cultural issues by shipping industry employers is needed to refocus their recruitment strategies.

Strategies are needed to improve the recruitment of seafarers and effectively manage their expectations from a more practical point due to the changing onboard culture. Working at sea is becoming quite demanding and onboard conditions are not that conducive due to engine room noise (Oldenburg & Jensen 2012) and shift work systems which significantly disrupt the biological rhythm of seafarers (Dembe et al. 2005; Spurgeon & Harrington 2001). Recent findings made by Zaar and Hammarstedt (2012) on the shipping industries of Scandinavian countries suggest

that the poor working conditions onboard are negatively affecting the attraction and recruitment of young people into the seafaring career. To attract young people into the maritime industry, Cremers (2010) recommends a need for improvement in working conditions onboard ships in order to meet the expectations of the current generation of job seekers. According to Zaar and Hammarstedt (2012) this should practically focus on the following areas: reducing long duty periods at sea and proportionately matching it with vacation periods without resorting to reduced salary, improving internet access, improving accommodation onboard, encouraging and increasing the female presence onboard ships as well enhancing job security through improved social security initiatives. As per providing long vacation periods, Haka et al. (2011) found that it does not only serve as a source of attraction to potential entrants but also a key source of motivation to those within the profession of seafaring. All these form part of the issues that should be addressed to meet the expectations of seafarers in order to sustain attraction.

2.3.1.2 Gender issues and recruiting of women seafarers

Apart from age and cultural issues, there are also a number of changes occurring with regards to gender in the recruitment of seafarers. Structural exclusion in the workplace in general is reported in research (Bhattacharyya 2012; Iyer & Ryan 2009) as a growing issue with mostly women as victims (Basow 2011). The seafaring sector is no exception to structural exclusion (Horck 2008; Thomas, Sampson & Zhao 2003). Walker, Peart and Gleaves (2003) found that research on the occupation of women at sea is limited. The number of women working within the merchant shipping industry is extremely low; and even though it is gradually growing (Horck 2010a); they are yet to be fully recognised by many employers for an officer role onboard ships (Magramo & Eler 2012). According to Belcher (2003), global interest in the integration of women into maritime training and employment started during the latter part of the 1990s after the first authoritative forecast on the seafarer shortage (BIMCO/ISF 1990) was released. Between one and two percent of the world's 1.25 million seafarers are women (Belcher et al. 2003); with most of them primarily employed within the hotel and hospitality division of cruise ships

(Magramo & Eler 2012; Thomas 2004; Zhao 2000). The reason being that many shipowners regard shipboard operation tasks as requiring strength which they classify women as not having (Horck 2004, 2005, 2008).

Recruiting female seafarers has significant implications for the supply of talent to the shipping industry. Thomas (2004) found that female seafarers are an under-recognised resource and, if utilised, could shore-up labour shortages in the industry, both in sea-going positions and in marine positions ashore. Female seafarers have been found to be equally passionate and committed to their career just as their male colleagues (Guo & Liang 2012). In Horck (2010a), employing women in seafaring is proposed as a tool for increasing retention rate among ship officers, due to their portrayed caring attitude. Belcher (2003) also subscribes to the idea of using female seafarers to reduce labour shortage problems in the industry; but however, noted that despite the efforts undertaken by many maritime universities around the world to attract women into training, there has not been much success. This may be due to seafaring being stereotyped as a profession for men (McKay 2007b). Horck (2010a) argues that the seafaring profession should rather be viewed as a job which demands good judgement and professionalism, not the use of strength. Also, Flatman (2003) pointed out that it is counterproductive from an industry perspective to harbour the perception that working onboard ships is predominantly masculine and should therefore remain a career for men. Unfortunately, this stereotyping of the seafaring profession is not only limited to shipping industry employers but training institutes as well; and both sides seem to reinforce the other (Walker, Peart & Gleaves 2003). A strong case can and should be made for the inclusion of women in the hiring policies of shipping industry employers. Magramo and Eler (2012) examined that many ship officers working at sea are of the view that women do possess the ability to become capable ship masters when given the required training.

There are several factors hindering the practicality of relying on women to address the shortage of ship officers. The starting point seems to be the Maritime Education

Training institutes (METs) where they are trained in an environment primarily regarded as a domain for males (Horck 2010b). In the first place, studies (see for example, Aggrey 2000; Horck 2008; Thomas, Sampson & Zhao 2003) have shown that women are faced with many challenges as they work on board ships; which increases as they strive to take up leadership positions. Typically, female seafarers face several forms of harassment onboard ships and this may act as an additional source of stress to them (Bloor, Thomas & Lane 2000). Sexual harassment has appeared in research as the most common challenge that face women at sea (Horck 2010a). As an industry that is male dominated and conservative in practice, work needs to be done for women to achieve an equal status with men in seafaring (Horck 2010a). Zhao (2000) emphasises that female seafarers are structurally excluded in the areas of age ceiling, remuneration and conditions of service. This may be hindering their integration into the global seafaring labour force. This is a reflection of what happens to women who move into traditionally male-dominated blue-collar jobs (Palmer & Lee 1990). Thus structural exclusion of women exists within the seafaring labour market. This could potentially limit the labour options available to shipping industry employers as their hiring policies generally exclude women. A different approach is therefore needed for the recruitment of seafarers where structural exclusion of women and inequality is adequately addressed. In effect, women are underrepresented in the seafarer job market; and improving conditions of employment for them may be a partial solution to attraction and retention.

2.3.1.3 Seafarer recruitment

The methods by which seafarers are recruited into the shipping industry are diverse (Couper et al. 1999). The recruitment of seafarers in modern times by shipping companies is undertaken either directly or indirectly (Rodriguez-Martos 2010; Tarver 2001). It appears the latter approach has become more popular among shipowners due to the underlying cost efficiency (Branch 2007) and the global reach offered by crew supplying companies (Goulielmos, Giziakis & Pallari 2011; Panayides 2003). The lack of adequate training berths onboard most modern day

ships (House 2012; Lewarn 2009; Lewarn & Francis 2009; Osnin 2004; Ruggunan 2009) could result in shipping companies not having a strong cadet system to practice in-house (direct) crewing (Theotokas & Progoulaki 2007); hence their reliance on crewing companies as an outsourcing approach. Thus the use of crewing agencies to satisfy labour needs has grown significantly in recent years. A weak cadet system was also found to be influenced by waning training commitment among shipowners (Wild 2012) and declining attractiveness of the seafaring profession among the younger generation due to the criminalisation of seafarers (Umney 2012). The lack of training commitment means that only a small segment of industry employers are meaningfully investing into the grooming of cadets (Gekara 2008, 2009). This is not limited to shipowners as such an attitude is found to be a common characteristic of the transport industry (Hock 2008) where the norm towards training and employment is ad-hoc and short-term in nature. The reduced commitment to seafarer training among shipping industry employers is borne out of the associated increasing financial burdens (Ghosh & Bowles 2013; Lewarn 2009). Meanwhile short-term employment contracts as is usually offered to most seafarers (Bloor & Sampson 2009) is inimical to sustainable grooming of skilled talent (Indridason & Wang 2008) for the shipping industry as it adversely affects attraction and retention (the impact of short-term contracts on the retention of seafarers is discussed in Chapter 3). Caesar, Cahoon and Fei (2013) explained that the expectations of people entering the shipping industry to work onboard ships may be to have continuous and relatively stable employment contracts. Unfortunately, such stable and long-term contracts do not form part of the common recruitment practices among the employers of seafarers (Thomas, Sampson & Zhao 2003). All these may contribute to the global shortage of ship officers as recruitment efforts by shipping industry employers is undermined as a result (Manuel 2011). Graveson (2009) found a strong association between the lack of commitment from shipping companies with regards to training and the prevailing manning crisis in the shipping industry.

The shipping industry has become reliant on crewing companies for the supply of seafarers as this approach is more cost effective. In Alderton et al. (2004) it is noted that crewing companies with a large clientele base are able to acquire the needed resources to satisfy the demands of their customers (shipping companies). Such crewing companies are engaged in various practices (Bloor, Thomas & Lane 2000) and have global reach; hence ship owners with relatively small fleets primarily rely on them to meet their crewing needs (Gekara 2008, 2009). Even though large shipping companies directly meet their crewing needs, there are still some of them who use a hybrid model of the direct and indirect methods in their recruitment of seafarers (Gardner et al. 2001; Theotokas & Progoulaki 2007). According to Couper et al. (1999) and McLaughlin (2012), large shipping companies primarily use direct recruitment methods for senior officers. Regardless of the approach a company may be using, an essential element of vessel crewing should be the strategy. The soundness of a company's crewing strategy lies in simultaneously reducing the amount spent on recruitment and training as well as optimising retention through crew satisfaction, loyalty and commitment (Jiunn-Liang, Liang & Kung-Don 2005; Larsen, Marnburg & Øgaard 2011). Some shipping companies employ an in-house strategy for the recruitment of ship officers in order to guarantee a certain degree of skill mix (hybrid of deck and engine room officers) onboard. To sustain such a strategy, there is the need for a flourishing cadet system that supplies the rank of officers.

Apart from using the services of crewing companies to source seafarers, there is a new development where shipowners engage the services of a third-party to manage not only the recruitment of seafarers but also the operation of the vessels. This arrangement is commonly referred to as third-party ship management. The emergence of third-party ship management over four decades ago led to a separation of ownership and management in the operation of shipping companies (Cariou & Wolff 2011a, 2011b; Dacanay & Walters 2011; Panayides & Cullinane 2002; Shinohara 2005); with crewing only forming part of a wide spectrum of functions that are performed under this type of outsourcing (Bloor & Sampson

2009; Mitroussi 2003). Goulielmos, Giziakis and Pallari (2011) suggest that cost cutting is the primary reason why shipowners resort to third-party ship management as crewing expenses constitute a core aspect of the main operating costs (Gekara 2008) in the lifetime of vessels (Alderton 2004; Stopford 2009; Willingale 1998).

There are many challenges associated with the direct recruitment of seafarers for shipowners (see for example, Dinwoodie 2000; Sambracos & Tsiaparikou 2001; Thomas 2004). Consequently, shipowners prefer the two types of indirect (using crewing companies or third-party ship management companies) recruitment methods. Despite the inherent economic advantages associated with the two indirect methods, their use also creates many challenges for both shipowners and seafarers. The work of Progoulaki and Theotokas (2010) for instance, provides evidence that there are numerous performance and quality-related issues associated with using the services of ship management and crewing companies. An example is the non-licensed manning agencies that are highly susceptible to dubious practices. Most of these agencies are located in emerging crew supply countries (Hawkins 2001; Zhao & Amante 2005) where questions have been raised with regards to the quality of trained seafarers due to limited resources for effective auditing of MET institutes and issues relating to varying degrees of fraudulent practices between METs and seafarer recruiting firms (Bloor & Sampson 2009). Furthermore, the ease with which fake certificates are acquired by seafarers under certain maritime administrations (Obando-Rojas et al. 2004) with sometimes the aid of unscrupulous manning agencies is widely acknowledged in research (Amante 2004; Barnes 2004; Couper 2000a; Tsamenyi, Palma & Schofield 2009) and can lead to the employment of incompetent people. Hence, using the services of crewing and third-party ship management companies to secure the services of seafarers makes it difficult for shipowners to ascertain their quality (Couper et al. 1999).

Apart from quality and performance issues, using the services of crewing companies and third-party ship management firms may lead to undue exploitation of seafarers.

For instance, some crewing companies make demands such as placement fees from seafarers before granting them employment contracts (DNV 2004). This is very common in countries such as the Philippines (Amante 2003, 2004; Zhao & Amante 2005). As a result, seafarers who may be looking for their first placement are compelled to borrow money from lenders to meet such placement fee demands (Couper 2012). Bloor, Thomas and Lane (2000) argue that economic incentives are the key reasons for the exploitation of seafarers. Also, poor recruitment practices among ship management companies are other reasons as they inadequately crew vessels with the aim of making higher profits (Mani 2011). This may be as a result of the low management fees reported among ship management companies (Gilbert 1995). The continued operation of crewing companies who exploit seafarers within the international shipping industry has created an unstable and stress-filled working atmosphere for seafarers (Couper 2000a). Also, the illegal activities of these crewing companies creates labour challenges for the shipping industry, especially with flag of convenience or substandard vessels (Alderton & Winchester 2002; Ruhullah 2003); whose continued presence on international sea routes is noted as creating a negative image for the shipping industry (Fafaliou, Lekakou & Theotokas 2006).

Furthermore, using third-party ship management to recruit seafarers makes it difficult for the establishment of a healthy and workable employer-employee relationship between shipping companies and the seafarers operating their vessels. This negatively impacts on crew motivation and creates retention problems (Horck 2010b). It is difficult to build any meaningful relationship between shipping companies and seafarers since by outsourcing the supply of labour, shipping companies are not directly engaged in the recruitment of seafarers (Bloor & Sampson 2009). This implies that it is quite difficult for them to practically monitor the quality of what they are paying for. A better management of the relationship between seafarers and their employers is thus needed (Caesar, Cahoon & Fei 2013). The many lapses associated with the current recruitment methods used by shipping industry employers to source for seafarers (Donner 2008) calls for a need to adopt better strategies towards the attainment of a more efficient hiring process.

2.3.2 The need for better strategies

As per the challenges posed by the prevailing seafarer recruitment methods, efforts must be made both at the organisation and industry level to address issues that hinder effective recruitment as inadequacies at all these levels have equally contributed to the current shortage of ship officers (Eler et al. 2009; Leggate 2004; Nigel 2008). Effective recruitment of seafarers should entail a crewing strategy that is aimed at ensuring a constant flow of seafarers to meet the needs of industry employers. In both traditional and non-traditional maritime nations, several measures ranging from tonnage tax incentives and target marketing have been introduced to boost recruitment and training of seafarers (McLaughlin 2012).

Despite these measures, there are many challenges within the shipping industry environment that needs to be addressed towards the realisation of a constant supply of seafarers. Suppiah (2009a) noted that many seafarers are denied the opportunity to leave a ship when in port despite the positive impact this may have on the management of stress and quality of life at sea (Jeżewska & Iversen 2012). This may have considerable ramifications for seafarer recruitment efforts among shipping industry employers. Also, restrictions triggered by the proliferation of post 9/11 maritime security regulations has created a feeling among seafarers of not being trusted and valued (Suppiah 2009b); and this negatively affects recruitment efforts. There is also the danger of recruiting incompetent seafarers due to growing certificate fraud (Bloor & Sampson 2009) and inability of flag states to undertake relevant inspections in line with international industry regulations (McConnell 2011). According to Bloor and Sampson (2009), the problem of fake certificates among manning agencies is exacerbated by increased pressure from shipowners for the supply of crew who may not be well equipped to work at sea as per industry training standards (IMO 2006). Despite these challenges, shipowners still use the services of agencies and other third parties to meet their crewing needs. A more efficient and workable hiring process in which both the suppliers (agencies) and buyers (shipowners) of seafaring labour work towards the amelioration of the foregoing challenges is needed.

Despite the pockets of efforts by shipping industry employers (McLaughlin 2012), much needs to be done to curtail the identified recruitment challenges and boost seafarer supply. There is therefore a need for strategies that are capable of attracting recruits towards a seafaring career. To make an organisation successful in building a brand towards the attraction of prospective employees, Wilden, Gudergan and Lings (2010) suggest the need for an effective recruitment strategy. The call for corporate social responsibility (CSR) among shipping industry employers is a necessary recruitment strategy that can position them as attractive brands to job seekers who may become potential employees (DNV 2004; Progoulaki 2006; Progoulaki & Roe 2011). A poor industry image emerged as one of the issues negatively affecting the attraction of people into seafaring (Cahoon, Haugstetter & Bhaskar 2010; Grey 2003; Higginbottom 2005). Due to changing regulatory requirements that shipping industry employers have to meet, they may be compelled to adopt certain stop-gap measures to stay economically viable (Fafaliou, Lekakou & Theotokas 2006). Some of these adopted measures create a negative impression about the seafaring profession and ultimately affects recruitment efforts. For the shipping industry, the concept of CSR could help alleviate the negative impact of stop-gap measures on the attraction and recruitment of seafarers as it helps to portray shipping industry employers as being socially responsible (Progoulaki 2006). It is also increasingly becoming important that shipping industry stakeholders demonstrate their commitment to CSR principles and practices as a measure towards improving the image of the sector in order to boost annual recruitment globally (DNV 2004).

Apart from commitment to CSR practices, other strategies that could equally boost the recruitment of seafarers principally entail the application of internal marketing models (Cahoon, Haugstetter & Bhaskar 2010; Thai & Latta 2010). Using the shipping industry as a point of reference, Cahoon and Haugstetter (2008) suggest that the increasing rate of exit of seafarers is not commensurate with their supply owing to the industry's growing negative reputation. Magramo and Gellada (2009) found this to be quite common among the younger generation. Such a trend is a

good recipe for the shortage of ship officers who can be considered as skilled labour (Cross 2010; Rodriguez-Martos 2010; Thai & Latta 2010). To address the identified global shortage of ship officers (BIMCO/ISF 2010), improving the image of shipping industry organisations need to be considered as a necessity (Cahoon & Haugstetter 2008; Cahoon, Haugstetter & Bhaskar 2010; Kokoszko 2006; Kokoszko & Cahoon 2007). Considering that seafaring is not actively promoted as a professional career (Gekara 2008, 2009), coupled with a need to increase the supply of seafarers, the adoption of industry and employer branding strategies is recommended among other things to transform the shipping industry into an industry of choice (IOC) (Cahoon, Haugstetter & Bhaskar 2010; Neumann & Pawlik 2012; Wilkinson & Cahoon 2008).

The aim of an IOC strategy for the shipping industry should be to differentiate the seafaring career from other industries (such as mining) that are equally competing for skilled talents (Thai & Latta 2010). Thus image branding for the shipping industry is necessary towards improving the recruitment of seafarers. This practically involves a proactive coalescence of employer of choice (EOC) and IOC strategies (Thai & Latta 2010) which uses both marketing and corporate social responsibility principles as a means of building strong employer brands for the attraction of people into seafaring (Thai et al. 2013). The adoption of an IOC strategy to improve recruitment of seafarers is necessary as it is argued (see for example, De Silva, Stanton & Stanton 2011; Kokoszko 2006) that the global shortage of ship officers should be addressed with relevant strategies from the industry perspective since the effort of one or a few organisations is not likely to make any meaningful impact on recruitment.

The hiring practices of shipping industry employers should essentially aim at meeting the career expectations of recruits. It must be realistic and form part of strategies used during the recruitment stage. This will give recruits a job preview of working onboard ships. Propositions from the literature suggests that EOC and IOC strategies can be effective in the management of expectations (see for example,

Cahoon, Haugstetter & Bhaskar 2010; Herman & Gioia 2001; Kokoszko 2006; Kokoszko & Cahoon 2007; Wilkinson & Cahoon 2008). It will however take the concerted effort of stakeholders at all levels of the shipping industry to achieve improved onboard working and living conditions for seafarers. In the case of maritime unions who constitute part of the spectrum of industry stakeholders (Lillie 2004), forming a united front to advocate for respect of the rights of seafarers under the Maritime Labour Convention (MLC 2006) is part of the overall improvement needed (Gekara & Acejo 2012; Smith 2010).

To improve the recruitment of entrants, especially young people into the seafaring profession; there are other options open to both industry employers and METs. Most traditional maritime countries within the Scandinavian region and Eastern Europe rely on campaign programmes, which are similar in *modus operandi* across the geographical spread, to attract young people into seafaring (Zaar & Hammarstedt 2012). The internet and electronic media act as very important tools in the process. Due to the challenge that comes with combining seafaring occupation and a healthy family life (Thomas & Bailey 2006; Thomas, Sampson & Zhao 2003), Zaar and Hammarstedt (2012) found that most young people from traditional maritime nations will not want to take up seafaring as a career and even if they do, recommending it to others becomes difficult. Campaigns and promotions aimed at the recruitment of seafarers must be designed to educate young people about the shipping industry and careers in shipping in order to boost the number of people attracted to work at sea.

2.4 SEAFARERS: CLASSIFICATION AND LIFE AT SEA

In this section, the various categories of seafarers are discussed. This is relevant for the establishment of a deeper understanding of how changes in life at sea affect the different kinds of seafarers. Also, it is important to discuss the reasons for which people aspire to become seafarers in any of the categories identified within the hierarchical structure of an ocean going ship. By understanding the reasons for

which people enter into seafaring, shipping industry employers will be able to make informed decisions with regards to their hiring policies and strategies.

2.4.1 Definition and category of seafarers

It appears from the literature there is no uniform definition of who is a seafarer. An early definition given by Healey (1969, p.65) states that a seafarer is “every person, who shall be employed or engaged to serve in any capacity onboard any vessel”. This may be either a rating, cadet or officer (Glen 2008). Another definition given under the ILO Convention 185 on Seafarer’s Identity Documents states that “the term ‘seafarer’ means any person who is engaged or works in any capacity onboard a vessel, other than a ship of war, ordinarily engaged in maritime navigation”. The definitions given by industry stakeholders such as the ILO and IMO on who a seafarer is differs. The ILO definition embraces all those working onboard a ship; whereas that of the IMO under the Safety of Life at Sea (SOLAS) convention does not include all those working onboard a ship as it is exclusively restricted to only those directly involved in the navigation of ships. It is important that any definition of seafarers encompass both those working in the engine and deck departments and other departments of the ship regardless of whether they are directly engaged in the navigation of the vessel. Thus a seafarer should be described as any person who is working onboard a vessel in a capacity that may be directly or indirectly connected to its safe navigation for the common good. This ultimately includes all seafarers within the hierarchical structure of a vessel’s complement (De Silva, Stanton & Stanton 2011; Oldenburg & Jensen 2012) – senior officers (master, chief officer, chief engineer and second engineer), junior officers (second officer, third engineer electrician), ratings and those who are working within the stewards department. Whereas a rating is a general crew member on a ship that is not specifically allocated to engine or deck duties, a cadet is an entry position which normally comes with particular duties in either the engine or deck departments.

The contrasting definitions for seafarers is evident in the different classifications given to them within the literature. Earlier studies clustered seafarers into four categories – old timers, trained men, new untrained men and illiterates (Kline &

Rogers 1949). Another classification given in Li and Wonham (1999a) has placed seafarers into three categories: employed (on an employment contract), active (qualified and working, looking for jobs at sea; excludes those not interested in jobs at sea) and qualified (has been licensed by approved authority). It is clear from these classifications that not all qualified seafarers may be available for employment (Parlak & Yildirim 2011), since some may be interested in other industries where their acquired skills can be harnessed (Cahoon & Haugstetter 2008). Also, some seafarers are inactive because, their qualifications have been rendered obsolete due to inability to upgrade skills to be in tune with rapid evolution in shipboard technology and regulations (Wu, Shen & Li 2007). In Borovnik (2004), it is argued that any definition and classification given to seafarers should consider the complexity of their career which includes a common cosmopolitan cultural identity and the transglobal nature of the market in which they operate.

Wu and Winchester (2005) further expanded knowledge on the classification of seafarers. The authors explain that seafarers can also be categorised by shipowners or crew managers based on: manning costs, legal constraints, nationality and onboard management experience. This sort of classification is mostly employed in the determination of wages and working conditions of the seafarer (Lillie 2004; Lillie 2005). The categorisation of seafarers on the premise of nationality breeds inequity (Carter 2005) with regards to remuneration and this has long been established in research (Horck 2004, 2005, 2006, 2008; Ishak 1989). For instance, shipping industry employers tend to give ship officers from Western countries favourable contracts and conditions of employment as compared to their counterparts from the developing world (Thomas & Bailey 2006). Also, lower rank seafarers such as ratings may find themselves working without a proper relief system and also do jobs outside the agreements of their signed employment contract (Parlak & Yildirim 2011). For many ratings, the nature of their job and contractual discrimination means that career progression to officer status is practically not a reality. Many of them may be unhappy at sea and desire to come to land, but are constrained by

barriers such as lack of commitment to move, lack of appropriate qualifications and inability to respond to landside opportunities early enough (Barnett et al. 2006).

The classification of seafarers by employers on the basis of their nationality is induced by the inherently global nature of the industry as it employs people from a wide geographical spread (Amante 2004; Ellis & Sampson 2008; Tsamourgelis 2009). However, such a manner of classification breeds inequity which may potentially impair recruitment efforts among industry employers. An effective categorisation of seafarers should enable industry employers identify the nature and type of talent needed during the time of recruitment.

2.4.2 Life at sea and emerging changes

There may be several classifications for seafarers but they all have many things in common (Barnett et al. 2006). These are notably the acquired attitudes that are unique to the seafaring culture and the working environment (Lamvik 2002). Thomas and Bailey (2006) elaborated that all seafarers work away from their homes and family and even country of origin (Foulke 2002). This involves a typical working life that is usually attached to the sea (De Silva, Stanton & Stanton 2011). The long absence from home creates social isolation for which reason most seafarers are perceived as narrow-minded with regards to their interaction with society (Barnett et al. 2006). Also, seafarers share a primary working environment – the confines of a ship (Gardner & Pettit 1999; Lewarn 2009; Oldenburg & Jensen 2012). The main category of people onboard these ships are: ship officers, cadets and ratings (Rodriguez-Martos 2010); with a clear distinction between officers and other members of the ship complement (Borovnik 2003, 2004).

The nature of the working environment onboard ships has been accorded varied descriptions by researchers over the years in a bid to portray what the career of seafarers entails. The working life of seafarers is mostly in an environment that is considered to be lonely and secluded from society (Dimitrova & Blanpain 2010); partly contributing to suicide onboard ships (Grappasonni, Petrelli & Amenta 2012; Oldenburg, Hogan & Jensen 2012; Roberts & Marlow 2005; Wickstrom &

Leivonniemi 1985). For seafarers, the ship is not only their working environment but also their home as well (Couper et al. 1999). In Couper (2012) the portrait of the seafaring life is parsimoniously painted with words such as *hazards*, *mobility*, *isolation* and *vulnerability*. This gives a largely negative outlook of the seafaring career although it is a career with positive aspects as well (Lindgren & Nilsson 2012).

In relation to the confined nature of their working environment, seafarers are highly susceptible to stress and other psychological hazards during their career (Allen, Wadsworth & Smith 2008; Carter 2011; Grappasonni et al. 2012; Jaremin 2009). Hence the working pattern followed by seafarers is daily associated with exposure to noise, vibration, anti-sleep bridge watch schedules and isolation. Studies have confirmed that people who work in confined and isolated environments are exposed to mental stress (Burke & Richardsen 2011; Castle & Martin 2006; Edwards 2012; Fairbrother & Warn 2003; Kowalski-trakofler & Vaught 2011); of which seafarers are not excluded (Houtman et al. 2005). Due to the isolation and stress, working onboard ships could be likened to working at the Arctic and Antarctic poles (Medlin, Lange & Baumann 1994); on offshore rigs (Parkes 1998; Sutherland & Flin 1989); and submarines. This calls for the administration of psychological tests for new recruits in order to determine their ability to withstand stress before admitting them onboard ships; as stress is acknowledged as a daily phenomenon in the working life of seafarers (Jeżewska & Iversen 2012). For seafarers, stress is also compounded by the fact that there appears to be no difference between their place of work and relaxation (Borovnik 2004). It seems the call to test and know the stress level and expectations of new recruits before admitting them to training and subsequently working onboard ships was made several decades ago. This is evident in the work of Kline and Rogers (1949 p.173) when they indicated that, “one of the most essential elements in recruiting as well as retaining a vigorous and vital merchant marine is understanding the merchant seaman himself – knowing where he is recruited, what his future plans are, what type of individual he actually is”. In this vein, the study manuals used for training at the MET institutes should be

designed to cater for this important issue. Thus a better management of the hiring process for seafarers is needed not to only improve recruitment numbers but to also effectively manage the varying expectations with which people enter into the seafaring career.

The interplay of economic factors within the shipping industry coupled with globalisation of the crewing function makes it practically difficult for most seafarers to secure a permanent employment contract with shipowners (Alderton & Winchester 2002; Gekara 2008). A typical employment contract for seafarers could last six or eight months and is usually temporary (Bauer 2008; Zhao & Amante 2005). This means a long wait at home is required after the end of one contract to secure the next ship which is usually owned by a company different from the previous employer. To this end, seafarers find themselves working for different shipping companies during their career life; with relatively varying contract lengths per company (Lindgren & Nilsson 2012). Magramo et al. (2010b) concludes that this encourages 'prostitution' among seafarers as they move from one ship owner to the other frequently in search of the next duty tour. This also makes them highly susceptible to exploitation from shipowners and other industry employers (Borovnik 2004). The period used in searching for new jobs may range from six months to a year and be very costly (Zhao & Amante 2005). During such a period, meeting the basic family needs becomes difficult as not all seafarers may have a reliable flow of income after spending months or sometimes years out of job (Lindgren & Nilsson 2012; Thomas & Bailey 2006). All these working conditions onboard ships may conflict with the expectations of seafarers and reasons why people take up a career in seafaring. Thus shipping industry employers need to know the kind of people they are recruiting in order to effectively manage their expectations and this requires a thorough understanding of the reasons and factors influencing whether people enter seafaring.

2.4.3 Factors motivating people to become seafarers

It appears there is a paucity of research on the factors that influence people to take up seafaring as a profession. The literature on this aspect of seafaring is not yet mature; it is still evolving as early research on seafarers (see for example, Bajpae 2005; Leggate 2004; Tarver 2001) tends to discuss their shortage rather than understanding what motivates or influences people to choose seafaring as a career. Generally, the factors that influence people to choose seafaring as a career are essentially different depending on whether recruits are from a traditional or non-traditional maritime nation (Barnett et al. 2006; Gould 2010; Lindgren & Nilsson 2012; Pekcan, Barnett & Gatfield 2003). In an early study conducted among 200 merchant marine officers, Goldfarb (1949) discovered two major categories of reasons why people opted for a career at sea onboard merchant ships: the lure of the sea (romance, adventure at sea) and economic motives. Economic motives primarily have to do with good salaries and this is the most common reason for people choosing seafaring as a profession (Dimitrova & Blanpain 2010). In the Goldfarb (1949) study, it emerged that 47 percent of the 200 surveyed ship officers entered into seafaring for economic reasons while 48 percent were lured by “adventure” or “to see the world”; with only two men out of the 200 intimating a desire to have seafaring as a permanent career. It is important to understand how the statistics have evolved approximately six decades after that study due to the dynamic nature of the seafarer labour market (Leong 2012).

Gould (2010) agrees that the factors influencing people to enter into seafaring may be either economic or non-economic as discovered in earlier studies (such as Goldfarb 1949; Hill 1972). According to the findings of Borovnik (2003), seafarers are primarily attracted to work onboard ships due to remuneration; an essential element of factors considered when people make career choices (Barnett et al. 2006). Lindgren and Nilsson (2012) elaborated that among Filipino crew, who constitute a significant proportion of the global maritime labour workforce (Amante 2003; Binghay 2005; Lamvik 2012; Leggate 2004; McKay 2007a; Ruggunan 2011), they are attracted to sea by the relatively high wages when compared to what is

being offered in their country by employers for land-based jobs; albeit with a large presence on many flag of convenience vessels (Terry 2009). This is quite arguable since not all researchers agree to the idea that seafarers are paid high wages (Ali 2011; McLaughlin 2012; Zhao 2011). This can further be understood when the culture, gender and experience of seafarers is taken into consideration as wages vary based on these factors (Borovnik 2004, 2006, 2011; Chin 2008; Parlak & Yildirim 2011; Poulsen, Sjögren & Lennerfors 2012; Progoulaki & Roe 2011; Visan & Georgescu 2012). Also, the high rate of unemployment among the Filipino population (Alburo & Abella 2002; Aldaba & Ang 2012; Brooks 2002; Montalvo 2004) adds to the reason that they want to take up seafaring as a profession to earn wages (Dimitrova & Blanpain 2010). This behavioural trend is also confirmed among seafarers from other emerging seafarer supply regions where the profession is seen as being relatively attractive for economic reasons (Dimitrova & Blanpain 2010; Parlak & Yildirim 2011); with some of them primarily emigrating from national to foreign flags vessels in order to earn higher salaries (Sencila et al. 2010). Hence people from developing regions may take up seafaring as a career in order to earn wages and support their respective families but the trend in developed nations such as Britain rather appears to be the opposite (Ledger & Roe 1992; Rodriguez-Martos 2010, p.104).

Ambivalence exists from a geographical perspective regarding the degree of importance good salary holds in attracting people to sea. In Belcher (2003), women from developing countries in Asia cited the opportunity to earn relatively higher wages as their reason for working at sea. As discussed elsewhere by Miller and Firehammer (2007), remuneration is equally identified as a factor that plays a major role in the motivation and retention of officers onboard ships by instilling crew loyalty. Thus shipowners and other industry employers are able to use remuneration as a tool to poach ship officers (Magramo et al. 2010b); especially in regions like the Philippines and other emerging crew supply countries where salary is a primary motivating factor for the entry of people into seafaring. Remuneration was also found as a major factor influencing the choice of employer among young

seafarers from maritime countries in Scandinavia (Zaar & Hammarstedt 2012). Shipping industry recruiters may need to considerably understand the dynamics of how remuneration influences potential employees within the target regions from which they are sourcing for labour. Such an insight could be helpful in designing recruitment strategies that may appeal to new recruits.

Economic factors influence (Couper et al. 1999) the decision of people to enter into the seafaring profession (Kalvaitiene, Bartuseviciene & Sencila 2011), but there are other motivators (Soukka 2012). In both traditional and non-traditional maritime nations, people with a family that has a long standing maritime tradition (Mack 2007) are influenced to choose a career in seafaring (Gould 2010; Lindgren & Nilsson 2012) as they subjectively consider it to be a calling rather than an occupation (Bunderson & Thompson 2009; Hunter, Dik & Banning 2010). The effects of globalisation on international shipping is however altering perceptions of the category of people who consider seafaring as a calling (Mack 2007); hence they now tend to look beyond the subjective aspects of the occupation when making career decisions. For instance, they may consider the changes in working conditions at sea (as discussed earlier in this Chapter) when deciding whether to become seafarers.

A finding by Barnett et al. (2006) explains that people may opt for a seafaring career due to their location, interest in life at sea, family influence and travel prospects. These categories of reasons are regarded as non-economic factors. In terms of location, people who live in predominantly seafaring communities have a reasonable understanding about the lifestyle and culture of seafaring and may thus regard remuneration as a secondary reason when opting for seafaring as a career. Also, Belcher (2003) found that travel prospects significantly influenced women from Eastern Europe and developed countries to take up careers onboard cruise ships. Hence, the extant literature provides evidence that there is a difference between the motives of people from these two regions (developing and developed nations) for joining seafaring. It is apparent that those from developing countries are primarily attracted to a career at sea for economic reasons whereas their

counterparts from the developed economies are usually motivated by non-economic factors. This could probably be largely due to the differences in employment opportunities and the general economic climate between these two regions.

Interest in a life at sea is losing its position as a non-economic factor which attracts people to seafaring. This is because conditions at sea are increasingly becoming difficult for seafarers, especially among cadets (Gould 2010) who withdraw early from their apprenticeship as a result (Gekara 2008, 2009). Furthermore, Rodriguez-Martos (2010) further explains that for people who take up a career at sea for other reasons (economic) apart from special interest in the occupation itself, time spent onboard ships is practically viewed as a nuisance; as they yearn to complete their duty tours early in order to disembark. Such a category of seafarers tends to move from ships to landside jobs after they have met financial targets for the acquisition of property or other needs that proceeds accrued while at sea can meet (Couper et al. 1999). Similarly, people who enter into seafaring for reasons other than an interest in the occupation may also move to jobs in the landside sector of the maritime industry after acquiring enough experience at sea to qualify them for such positions.

The shipping industry is losing the ability to attract entrants who fall in the category of people who opt for seafaring as a career due to the lure of the sea. There are many reasons for this trend. Firstly, as discussed recently by McLaughlin (2012), the emergence of being a cheaper means of travelling suggests that taking up a career in seafaring enables them to visit other countries at a relatively cheaper cost. Other cheaper means of travelling around the world has emerged; annulling the initial attraction seafaring had on entrants. Secondly, with reduced turnaround time in ports (Bloor, Thomas & Lane 2000), which is mainly influenced by advanced cargo handling technology, seafaring has forfeited its alluring nature that endeared it to earlier generations of seafarers. Hence, the modern day seafarer is less likely to

have enough time to experience the culture of countries visited during duty tours as compared to their predecessors (Sampson & Wu 2003).

Thus, structural changes in the shipping industry and the remote location of ports away from city centres have changed the very fabric of life at sea. In some cases, large vessels may spend only 24-36 hours in port thus providing little time for the much sought after shore leave (Deloitte 2011; Oldenburg & Jensen 2012). When coupled with the use of a skeletal ship crew on-board and increased workload, seafaring is becoming less likely to be a career of adventure (Dimitrova & Blanpain 2010).

With regards to maritime education, there are many issues that influence the decision of students to take up courses that lead to a career in seafaring (Zaar & Hammarstedt 2012). Generally, the views expressed in the literature essentially posit that the decision of students to study courses that culminate in seagoing careers is primarily determined by their expectations and the conditions to working as a seafarer (Dinwoodie 1996, 2000; Dinwoodie & Heijveld 1997). In Guo, Liang and Ye (2006) the authors empirically demonstrated that students take up courses in navigation due to the supposedly high salary of seafarers, influence from family (Zaar & Hammarstedt 2012) and peers as well as an intrinsic desire to be a seafarer. As noted earlier for seafarers in general, students also apart from economic reasons, consider other non-economic factors which play a substantial role in the decision making process. More specifically, Hallerström, Ljungqvist and Tylegård (2008) found a strong association between economic motives and choosing courses that lead to a career in seafaring. For most students who opt for a career in seafaring due to non-economic factors, Gould (2010) found that they have had a childhood connection with the sea through fishing and sailing and are usually from coastal regions; where seafaring is an essential source of livelihood for many homes (Dimitrova & Blanpain 2010). In a country like Greece, family influence is quite instrumental in securing maritime jobs (Barnett et al. 2006) hence students with family connections in shipping are more likely to be influenced by such a factor

when making career choices. This is not surprising as Whiston and Keller (2004) found that the occupation of parents wield significant influence over the career choices made by their children. Family support was found to be quite low for females who desire to undertake a career in seafaring due to culture and the negative perceptions most parents have about the profession (Belcher 2003).

Table 2.2 provides a summary of the factors emerging from the reviewed literature as being responsible for motivating people towards their entry into seafaring. The table shows that the factors motivating people to take up a career in seafaring are broadly divided into two groups – economic and non-economic.

Table 2.2: Reasons for a seafaring career

| REASONS | LITERATURE |
|--|--|
| Economic reasons | Goldfarb (1949); Couper et al. (1998); Borovnik (2003); Barnett et al. (2006); Guo, Liang and Ye (2006); Hallerström, Ljungqvist and Tylegård (2008); Dimitrova and Blanpain (2010); Kalvaitiene, Bartuseviciene and Sencila (2011); Parlak and Yildirim (2011); Lindgren & Nilsson (2012) |
| Relatively high remuneration/salary | |
| Availability of career prospects and advancement | |
| Non-economic reasons | Hill (1972); Ledger & Roe (1992); Pekcan, Barnett & Gatfield (2003); Barnett et al. (2006); Mack (2007); Gould (2010); Rodriguez-Martos (2010) |
| Family influence, history and tradition | |
| Accidental | |
| Curiosity | |
| Desire to escape family ties | |
| Coastal connection and location of upbringing | |
| Lure of travel opportunity | |
| Lure of the lifestyle at sea | |
| Pride and prestige | |
| Peer influence | |

Source: Author

Even though there are reasons why people may not want to take up a career in seafaring, these will be discussed in Chapter three as they are more related to the retention of seafarers rather than their recruitment.

2.5 TRAINING OF SEAFARERS

The traditional cadet training system discussed in the human resource literature on seafarers is a typical example of a succession planning system for seafarers which

primarily ensures that there is a reliable pool of talent from which shipping companies could pick future ship officers. However, the vagaries of globalisation coupled with economic pressures are changing the complexity of cadet training for the shipping industry. In this section, the cadet and seafarer training system is discussed with an explanation of how it impacts on the effective recruitment of maritime labour.

2.5.1 The cadet system

Cadets can be regarded as young apprentices who undergo training to become seafarers. In relation to the recruiting and training of seafarers, the cadet system constitutes a very important issue that is worthy of consideration. Giving an account of how cadets are trained to become masters, Gould (2010) extensively documents issues relating to the attraction and attrition of cadets within the shipping industry. Most of the literature on cadet training and attrition is based on the United Kingdom (Brownrigg et al. 2001; Gekara 2008, 2009, 2010; Gould 2010); yet they essentially reflect the general trend of issues pertaining to the recruitment of seafarers within the shipping industry (Barnett et al. 2006; Pekcan, Barnett & Gatfield 2003). The cadet system forms the backbone of ship officer supply (Gekara 2012); but with shipowners partially neglecting the role of training cadets and the unavailability of adequate training berths on board modern ships (Ghosh & Bowles 2013), maintaining a substantial labour pool to feed the higher ranks within the hierarchy of a vessel's complement is becoming difficult. According to Bonnin et al. (2004) stiff competition for training berths among ratings has erupted on a global scale as a result (Gekara 2008, 2009). An effective cadet system that will aid the seamless recruiting of people into the shipping industry is not possible without adequate training berths onboard oceangoing ships. Thus the lack of training berths is not only an obstacle to the recruitment and training of seafarers but equally endangers the future supply of seafarers to a growing shipping industry.

Apart from the lack of training berths, there are other challenges associated with the recruitment and training of cadets. For instance, even though the natural destination of cadets is the confines of a ship, not all cadets go to sea after school

(Barnett et al. 2006) as some may decide to work with landside companies in the shipping industry (Zhao & Amante 2005). This in effect reduces the number of cadets that enter the industry annually to be groomed into officers. The problem is further compounded by the high wastage rate among cadets both in maritime training facilities and during industrial placements (Gardner et al. 2007; Gardner et al. 2001; Gardner & Pettit 1999; Gekara 2009, 2012; Gekara & Acejo 2012; Zhao & Amante 2005). In Obando-Rojas, Gardner and Naim (1999), the supply of ship officers is likened to a supply chain that begins with the entry of cadets; but is under threat from poor recruitment and growing wastage patterns (Gekara 2008, 2009) as well as the existence of training delays. The continuation of such a trend has negative ramifications for both the offshore and onshore sectors of the shipping industry (Gardner et al. 2001; Klikauer & Morris 2003). Zhao and Amante (2005) found the high costs of maritime training and difficulty in securing compulsory serving time onboard ships emerged as the two main factors responsible for increased wastage among cadets. To address this negative trend, Magramo et al. (2010b) suggests that shipping companies should offer scholarships to cadets who can then progress after training to become officers. A prototype of this was found to be successful in Hong Kong where financial assistance is given to successful candidates to undertake maritime training after which other incentives are given to them (Lewarn 2009). Due to the high costs of maritime training, Asyali and Zorba (2009) concluded that shipping companies are compelled to discontinue funding of training programmes for seafarers during periods of economic downturn in order to stay afloat financially. Thus the high cost of training cadets to become officers is a formidable barrier to the future supply of adequately qualified maritime manpower.

After training, cadets are further groomed to become ship officers. Normally cadets enter into MET institutes after basic and secondary education to pursue degree or non-degree programmes for onward progress to either shipboard or land-side positions. The average training period for cadets is four years (Bloor & Sampson 2009; Gould 2010); during which they undergo a hybrid of classroom and shipboard learning to acquire the requisite seafaring skills to become junior officers (Gekara

2008). There is however a difference in the levels at which cadets from emerging crew supplying regions and developed countries enter into the METs for training. Whereas those from developed nations may enter METs after 12 years of mainstream education (Horck 2006, p.92), their counterparts from developing countries such as the Philippines tend to usually access MET training after high school which is an average of 16 years (Zhao & Amante 2005). There appears to be a relationship between the age at which people enter into cadet training and their ability to endure. For instance, the unique nature of seafaring occupations makes it difficult for many young people to stay longer and this is increasingly having an effect on attrition rates in traditional maritime nations such as the United Kingdom (Gekara 2008, 2009). Primarily, most cadets are young people and the lack of support from officers and mentors onboard as well as those onshore also compels them to discontinue their training towards a junior officer position (Gould 2010). The situation is even more demanding for female cadets who will first have to adapt to an occupation that is mainly dominated by males, alongside the tedious tasks performed at sea (Gould 2010; Thomas 2004).

The challenges to the effective recruiting and training of cadets (see for example, Gekara 2009; Sampson 2004; Sampson & Bloor 2007) impacts negatively on the output of initiatives aimed at attracting more people into the shipping industry (Cremers 2010). For instance, one of the reasons for the introduction of tonnage tax schemes in major European seafaring nations and the United Kingdom (Selkou & Roe 2002) which was to improve recruitment and training of seafarers through the cadet system, has not been achieved (Tarver & Pourzanjani 2003). The countries only ended up attracting more ships into their respective registers without making a positive impact on the recruitment of cadets (Leggate & McConville 2005). Even though most of the studies on declining tonnages are related to the United Kingdom (Brownrigg 1993; Goss 1993; Ledger & Michael 1993; Ledger & Roe 1992), the results give a true reflection of the complexity of issues in that regard within traditional maritime nations. The simple reason for failure of the tonnage tax system is the lack of commitment from shipowners towards the training as well as

employment of relatively expensive seafarers from traditional maritime nations (Brownrigg et al. 2001; Gekara 2010). Also, the rewards of registering ships under flags of convenience (Borovnik 2004) were too obvious to ignore (Alderton & Winchester 2002; Marlow 2002) and still exist (Lillie 2005). By avoiding the strict regulatory requirements entrenched under traditional registers, shipowners are able to save 15 percent on operating costs (OECD 1996); hence their opting for open registries which does not restrict employment of foreign labour.

With factors such as intense competition from other industries, wrong perceptions about seafaring as a low tech vocational career (Cremers 2010), piracy and criminalisation of seafarers (Kirby 2011, 2012; Mitropoulos 2011; Mukundan 2003), the effective recruitment of seafarers through the cadet system has come under enormous pressure.

The literature offers measures that could be resorted to by key shipping industry stakeholders to improve the recruitment of seafarers. It suggests that efforts aimed at improving seafarer recruitment needs to focus on improving the image of the shipping industry especially among young people in developed countries. More importantly, measures that improve the shipping industry image need to be given adequate attention as image issues are fundamentally linked to the reasons inhibiting people from entering into a seafaring career (Cahoon, Haugstetter & Bhaskar 2010; Manuel 2011; Simona, Cristina & Ana-Maria 2011; Zaar & Hammarstedt 2012).

2.5.2 Training facilities for seafarers

Finding quality labour to operate the ships involved in global maritime trade should be a central aspect of recruitment efforts aimed at attracting seafarers into the shipping industry. To achieve the needed quality, seafarers must be given appropriate training. There are many categories of facilities used in the training of seafarers (Horck 2008) even though not all are considered as statutory (Bloor & Sampson 2009) due to the difference in training requirements and periods for ratings and officers (Bonnin et al. 2004). There are over 90 internationally

recognised METs in more than 60 countries (Popescu & Varsami 2010) which may be private or state-owned (Bloor & Sampson 2009). These METs usually form a small part of the entire educational structure in their respective countries and hence will often have to endure limited budgetary allocations (Veenstra 2002). The funding problems of METs is a challenge in countries like China and the Philippines where most of them are either directly or indirectly owned by the state (Zhao & Amante 2005). Zaar and Hammarstedt (2012) is of the view that by increasing funding for METs, governments will be able to raise interest in the seafaring career among young people. The poor state of MET facilities has come to light in the midst of relevant research on seafarers (see for example, Couper et al. 1999) which suggests that the much discussed shortage of ship officers has much to do with the quality of training and resources (BIMCO/ISF 2010; Lewarn 2012; Li & Wonham 1999a).

The core reason for the existence of MET facilities is to supply quality manpower for the shipping industry (Demirel & Mehta 2009) through the provision of requisite maritime training (Gekara 2008, 2009). Thus, Magramo et al. (2010a) argue that the quality of instruction and competency of the professional instructors is an important factor towards producing high quality graduates who will eventually become officers to operate modern ships. Additionally, developing quality ship officers as per industry standards is a time-consuming and laborious exercise (Chen 2004; Lin, Wang & Chiang 2001) which demands commensurate sacrifice in the form of investment in training from major industry stakeholders, but this is not forthcoming (Galić, Lušić & Pušić 2012). Also, Pourzanjani and Ali (2008) examined the role of seafarers onboard and found it is becoming increasingly sophisticated due to evolving technology. An ever pressing need exists for training to be of a high quality in order to impart the requisite skills expected of today's seafaring workforce. Hence, this stresses the need for teachers of high quality in METs who are abreast of the latest technology onboard ships in order to equally produce competent seafaring graduates (Eler et al. 2009). However, the profit motive (not applicable to some countries) of METs endangers the drive towards quality as large

numbers of students are admitted not for their cognitive ability (Zhao & Amante 2005) but rather the revenue to be made from them. Also, the lack of government promotion for MET training programmes have coerced many of them to lower admission standards and qualifications required of entrants in order to boost intake numbers (Gekara 2009).

Considering that students with poor entry results could encounter difficulties with learning; which is one of the major predictors of attrition among students in higher education training (Adamson & McAleavy 2000; Rickinson & Rutherford 1995), METs need to find a more expedient strategy to increase cadet admission figures. Even so, the literature (see for example, Gekara 2008, 2009; Gould 2010) suggests that increasing intake numbers is not a problem for METs when compared to the high attrition rates after students are admitted.

2.5.2.1 METs and shipowners – need for collaboration

Unfortunately, the challenge of poor training is not only limited to METs (classroom aspect of the seafarer training); since full compliance as per the requirements under the Standards of Training, Certification and Watchkeeping (STCW) 1995 (revised Manila Convention 2010) is not met by all shipping companies during the sea time training of cadets (Barsan 2007). Poor funding means that METs in countries like the Philippines and China are unable to afford training vessels or use obsolete ones. These METs therefore rely on shipowners for the provision of practical training to cadets (Zhao & Amante 2005). To improve the quality of training for cadets, there is a need for increased collaboration between METs and shipowners to ensure that shipping industry employers have access to adequately trained employees. Bonnin et al. (2004) posit that such collaboration must also be extended to the seafarer labour unions and other maritime authorities. Thus, quality seafarer education can be achieved through effective collaboration among stakeholders of the shipping industry. This helps to reduce the occurrence of maritime accidents as competent officers emerge out of well-trained industry entrants (Demirel & Mehta 2009; Ziarati, Ziarati & Acar 2011). Since METs serve as an industry entry point for

seafarers, they have a role to play in addressing the quality of seafarers trained for the future maritime labour pool (Zaar & Hammarstedt 2012).

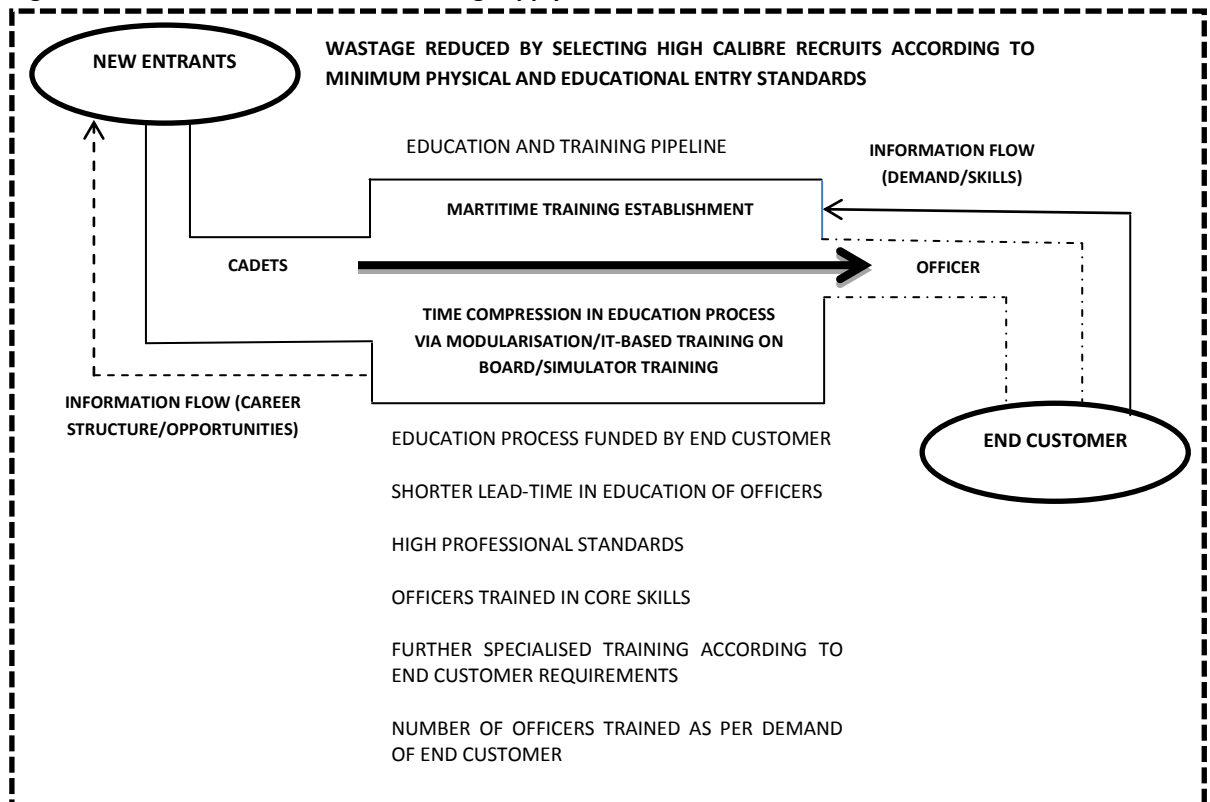
Access to quality maritime education is an important factor that influences and can limit the supply pipeline of future seafarers. Despite such an awareness, there is still a lack of close and consistent collaboration between academic institutions and the end users of their products; namely the shipping companies that employ their graduates. Consistent collaboration between these two key groups of stakeholders is important to ensure that cadets receive the kind of training relevant to the dynamic changes in shipboard operations, the working environment and the shipping industry in general (Deloitte 2011). The absence of collaboration between training institutes and shipowners is further evidenced in the reported difficulty that METs endure to secure berths onboard ships for the compulsory 12/6 months (12 months for deck cadets and 6 months for engineer cadets) sea training required of cadets (Barsan 2007). The implication of such a situation is the entry of fewer cadets into mainstream onboard training for future officer positions. This may eventually lead to the formation of wrong perceptions among cadets about seafaring as a career; since the training climate created as a result of a collapse in coordination among METs and employers could be discouraging to trainees (Gekara 2008).

The lack of collaboration between the educators and employers of cadets and other factors related to onboard conditions could be highlighted as key reasons for the high attrition among them. In traditional maritime nations for instance, an increasing number of cadets who finally secure training berths on ships exit during the first sea experience (Gekara 2009) due to the unfamiliar nature (Gould 2010) of the seafaring occupation. The lack of collaboration between METs and other parties connected to the training of seafarers creates dissatisfaction among cadets and eventually culminates in high attrition – disturbingly at the ‘sunrise’ stage of the cadetship (Gekara 2007; Gekara 2006). The difference in interests of major stakeholders connected to the cadetship was found to be responsible for the lack of

collaboration among them (Gekara 2009). Thus, both the employers and trainers of seafarers will therefore need to realign their objectives in relation to training strategies towards a more workable model for the hiring and recruitment of seafarers.

To achieve an effective alliance between METs and the end users (shipowners) of their products (cadets), Obando-Rojas, Gardner and Naim (1999) proposed the model in Figure 2.1 as a panacea. The model suggests that shipping companies should not just collaborate with METs but they must be more committed and involved in the funding of the training as well. Also, there is a need for an adequate flow of vital information between shipping industry employers and METs on the category of seafarers needed. The entrance, training and employment of seafarers should entail an integration of all relevant elements (policies and information) to ensure that cadets with the appropriate psychological characteristics and skill sets are recruited to meet the labour needs of industry employers.

Figure 2.1: Merchant officer 'ideal' training supply-chain



Source: Obando-Rojas, Gardner and Naim (1999, p.45)

De Silva, Stanton and Stanton (2011) discovered that issues such as inadequate commitment to training programmes on the part of shipowners and lack of multiple career opportunities have resulted in a human resource challenge for maritime labour firms whose main business is to supply qualified seafarers to the growing global fleet. It is very important that shipowners view the training of seafarers as a primary responsibility under the lens of corporate morality. They need to be actively involved in the training of seafarers (Barsan 2007). To this end, Zhao and Amante (2005) argued that shipowners need to bear greater responsibility towards the realisation of a competently trained seafarer workforce through the provision of training berths and sponsoring of trainees (Bonnin et al. 2004). Studies on corporate social responsibility (CSR) in the maritime industry also recommend that the provision of training needs to form the nucleus of recruitment strategies among shipowners (DNV 2004; Fafaliou, Lekakou & Theotokas 2006).

2.5.3 Seafarers and succession planning

According to Kowalewski, Moretti and McGee (2012), succession planning is critical for the identification and selection of talent who are considered relevant to the future of organisations. There are numerous reasons why succession planning is crucial to the management of organisations (Barnett & Davis 2008; Crumpacker & Crumpacker 2007; Rothwell 2005, 2010). These reasons may be either related to the recruitment or retention of staff (Rothwell 2005, 2009, 2010). Also, a succession plan helps organisations to identify the career plans of potential employees and effectively align their recruitment efforts towards the attraction of those whose ambitions falls in line with the organisational goals (Crumpacker & Crumpacker 2007; Rothwell 2005, 2010). Thus, with a succession plan, companies are able to align their hiring decisions with their respective corporate goals (Atwood 2007) thereby creating an opportunity to effectively address the current and future human resource needs of an organisation (Cannon & McGee 2007).

As an integral part of talent management, succession planning is a very important aspect of the structure within organisations and should form the nucleus of

recruitment policies (Garman & Glawe 2004). It must not be restricted to only senior executives (Rothwell 2010). Succession planning should not be confused with staff replacement as they are not the same (Rothwell 2005, 2010). The former is proactive and addresses labour needs before it exists and the latter is rather reactive (Atwood 2007). A company that has good human resource practices may be able to detect when to recruit. Such a company needs to have a succession plan which forms an important aspect of the recruitment and training of staff (Rothwell 2010). Succession planning then is a driver for recruitment. One of the important features of an effective succession planning strategy is its ability to address the need for critical backups and cutting across the entire organisation (Rothwell 2010).

2.5.3.1 Best practice succession planning

Contemporary researchers on talent management dating from the 2000s have focused on the strategic role of succession planning within the entire organisation structure (Busine & Watt 2005; Cannon & McGee 2007; McDonnell et al. 2010; Rothwell 2005, 2009, 2010; Rothwell & Kazanas 2003). Such a trend in research is quite crucial in this era of dynamism in business environments as organisations need to be aware of the strategic factors that control issues relating to effective employee recruitment (Zygmunt & Feenstra 2012). Unfortunately, strategic thinking ability and leadership skills have become generally outmoded in organisations (Stadler 2011). Taylor and McGraw (2004) concluded that succession management is becoming a strategic and critical factor of organisational success. The implication behind this trend in research is that, many organisations are beginning to acknowledge the relevance of having an effective succession planning system in place to deliver reliable solutions for their human resource challenges.

The strategic position occupied by succession planning within an organisation suggests a need to understand the criteria by which best practice succession planning is determined (Rothwell 2010). Holland (2012) posits that best practice succession planning must involve an open communication system which is made available to all stakeholders (employers and employees) with an effective feedback mechanism. This requires a high level of organising and efficient allocation of

adequate resources (Friedman 2011) towards the identification of future organisational competency needs for the achievement of strategic objectives (Rothwell 2010). Thus best practice succession planning requires co-ordination, collaboration and communication from all parties such as board members, managers and subordinates (Atwood 2007; Hills 2009) across all levels of the organisation (Taylor & McGraw 2004).

There is a link between succession planning and career planning; the former being at the organisational level and the latter at the individual level (Taylor & McGraw 2004). Hence, it is an imperative for the planning team to consider the intricacies of both sides at the design stage in order to cater for the needs of the various parties involved. Also, Rothwell (2010) argues that a succession plan without a career plan is just a wish list; likewise a career plan without a succession plan is a roadmap without a destination. This certainly means that the individual career plans of employees when known at the recruitment stage may be useful during the design and modification of the organisation's succession plan. Hence it must be a system which is capable of effectively tracking, mentoring and training future leaders for the organisation due to the following reasons: retirement, mobility of employees to find jobs elsewhere, promotion from within and termination of employment contracts (Kowalewski, Moretti & McGee 2012). Atwood (2007) recommends that a succession planning system must be simple to aid implementation. However, Friedman (2011) argues that this does not prevent it from being highly organised to aid communication and effectiveness.

2.5.3.2 Succession planning for the shipping industry

Stevens, Plaut and Sanchez-Burks (2008) provides evidence that many organisations are struggling with how to manage diversity among their workforce. The shipping industry is not an exception. Rothwell (2010) proposes that succession planning is effective in the management and advancement of staff in diverse workforce environments. This may prove equally effective in the case of seafaring which has most of the attributes of a diverse workforce due to its globalised nature (Armstrong 2012; Bohlander & Snell 2007; Riccucci 2011; Rothwell 2010). Ensuring a

constant supply of cadets to fill the position of retiring and departing ship officers is a necessity for industry employers; hence the need for succession planning in shipping. Due to its proactive nature, a succession planning strategy is what is needed for a sustained supply of seafarers. The shipping industry is largely acknowledged as being reactive (Blanco-Bazan 2004; Wang 2009); even towards finding a lasting solution for the shortage of ship officers.

The time span involved in training people to become full-fledged ship officers averages ten years (BIMCO/ISF 2010; Dyer-Smith 1992) and this means a long lead time between the period people enter into the industry until they become officers (Obando-Rojas, Gardner & Naim 1999). The training period is often interlaced with both onboard training and classroom education which further extends the length of training (Gould 2010). Also, notable issues such as the glass ceiling syndrome (Eler et al. 2009) present practical obstacles to the career progression of cadets who desire to become masters (especially organisational culture which may not favour the promotion of seafarers from certain regions to the position of ship officers). An example can also be cited of the retrenchment of seafarers which occurs during economic downturns (Cahoon, Haugstetter & Bhaskar 2010; Grey 2003) as shipowners are compelled to cut down on crewing costs to stay competitive over the period. All these things contribute to increasing wastage among cadets (Gekara 2009) and other categories of seafarers; as the need to sustain morale and loyalty becomes greater. With increased wastage, the employee recruitment budget of shipping industry employers is more likely to increase as they will have to replace exiting seafarers. An effective succession plan may help alleviate the rate at which cadets leave shipping companies and thus reduce the costs incurred towards the recruitment and training of seafarers (Caesar 2013).

Considering that the availability of opportunities for career progression is a major reason for people staying at sea (Barnett et al. 2006), any sense of job insecurity which is influenced by poor organisational practices (such as retrenchment and labour inequity) can trigger the movement of cadets to landside sectors of the

shipping industry or even join other industries as they become anxious over the certainty of their future career prospects (Gekara 2010). Succession planning may potentially be that effective strategic management tool with which shipping companies can stabilise their pool of labour regardless of the prevailing economic climate.

Also, age has already emerged as an issue among seafarers; with studies confirming that the age of ship officers from traditional crew supply nations is quite advanced (Mitroussi 2008; Silos et al. 2012). An ageing workforce for shipping and the apparent lack of interest among the younger generation for a career at sea is deepening the current labour crisis in the shipping industry. A better interpretation of the high age profile of officers from traditional maritime nations is that a large number of them will retire at a particular period and commensurate replacement becomes an obvious necessity. All these translate into a need for succession planning to ensure an effective management of the career ambitions of cadet trainees in order to reduce wastage, which has been identified as one of the major factors contributing to the shortage of ship officers. Thus, succession planning should be seen by shipping industry employers as a driver for the recruitment of seafarers at the appropriate time. A model of succession planning for cadets should be effectively communicated to them at the inception of their career and may take into consideration age, gender and ethnicity so that it can be rid of bias in any form. By this, realistic career expectations of cadets can be ascertained during the recruitment phase and addressed accordingly. Admittedly, the recent recruitment of seafarers through crewing agencies and the intermittent nature of their employment contracts could constitute an obstacle to the effective implementation of succession planning for seafarers. Thus, succession planning works better where seafarers are directly employed by shipowners and employed on a long-term basis.

Succession planning can be construed as a long term approach to talent development which when adopted in the shipping industry can help alleviate the shortage of ship officers. Donner (2008) however explained that even though the

shortage of ship officers has been around for a very long time, industry employers tend to rely on stop-gap measures for the recruitment of seafarers. Such an approach is not capable of providing any lasting solution to the problem but only temporary relief. The short-term measures commonly used by shipping industry employers to recruit seafarers include: re-employment of retired officers (Donner 2008), poaching of officers (Magramo et al. 2010b), quick elevation of newly qualified officers to the rank of masters, using the services of sometimes unscrupulous crewing agencies in emerging seafarer supply countries (Amante 2003, 2004), lengthening of duty tours of officers and reducing manning scales (Hetherington, Flin & Mearns 2006). Aside from the fact that these temporary measures do not present a realistic opportunity to secure a reliable supply chain for the future supply of ship officers, Donner (2008) notes that most of them have negative ramifications for maritime safety. Thus, most of these temporary measures are inimical to sustainable recruitment practice among industry employers for the viable supply of officers. An adequate supply of officers is achievable through the design and implementation of an effective succession plan which will help stabilise the supply of seafarers for shipping industry employers.

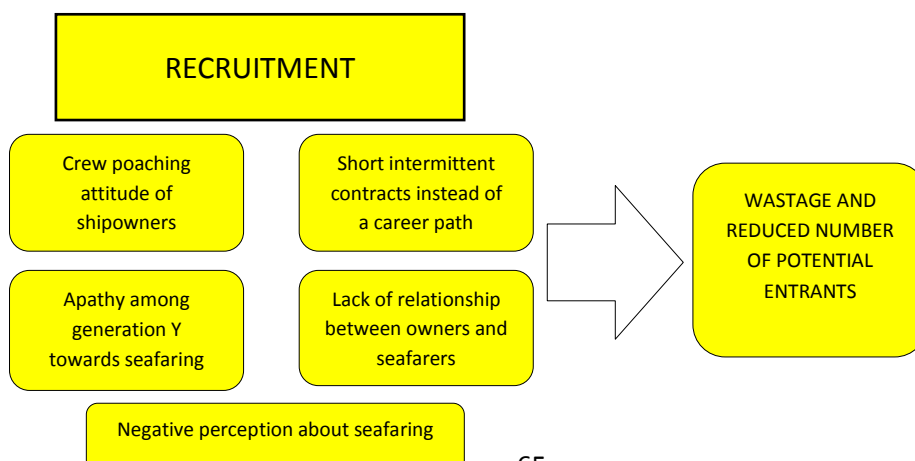
From the perspective of acquiring and retaining skilled labour, a question needs to be asked of how shipping industry employers can become sustainable organisations for the future? This is because the current hiring practices used by shipping companies and other seafarer-employing establishments to recruit seafarers need refocusing. A long-term approach is needed for the recruitment and employment of seafarers in order to ensure sustainability of supply. Any programme outlined to achieve sustainability of supply must have a career development programme for new entrants and existing employees as its foundation (Magramo et al. 2010b). Hence, an effective succession planning for seafaring will mean that the attitude of shipping industry employers towards the sustainability of labour should not be reactive or demand driven but rather proactive in approach.

2.6 SUMMARY

The purpose of this Chapter was to review the literature primarily pertaining to the recruitment of seafarers and emerging changes in that regard over the past 50 years. The core issue surrounding the training and recruitment of seafarers is that it is largely influenced by globalisation - a key factor fuelling the content of employment and labour sourcing policies of shipowners. Due to dynamics within the global seafarer labour market, shipowners are increasingly relying on emerging crew supply grounds largely in Asia for their crewing needs and this is usually done through crewing agencies – a form of outsourcing that is not devoid of problems for the industry. As a result, building an effective employer-employee relationship between seafarers and shipping companies is becoming more difficult.

The key aspects of seafarer recruitment (shown in Figure 2.2) form an important component of the conceptual framework for this thesis (presented in Chapter four). Seafarers can be recruited either directly or indirectly, with the latter option emerging as popular with industry employers due to its relatively low costs. There are several challenges confronting effective recruitment of seafarers which ultimately affects their retention in the long run. The most common issues include: lack of collaboration between shipowners and METs, poor recruitment practices among ship industry employers, growing apathy among young people in traditional maritime nations towards a seafaring career, lack of funding for training and less commitment from shipowners to training, lack of training berths for the timely deployment of cadets and poor cadet experiences at sea.

Figure 2.2: Key aspects of seafarer recruitment



The factors that motivate people to take up a career in seafaring are numerous and can be categorised into economic and non-economic. Even though economic factors play a presiding role in the attraction of entrants, it is more associated with those emanating from developing economies where unemployment is relatively high. People are also attracted to seafaring because of non-economic factors such as the lure of the lifestyle at sea. However, changing conditions of working onboard ships and regulatory factors is making seafaring lose its once alluring nature.

All the aforementioned challenges provoke an urgent need for shipping industry employers to revise their current stop-gap and organisation-centred recruitment practices by assuming a rather proactive stance towards the supply of maritime labour. This is achievable through the use of strategic human resource tools such as succession planning with a long-term view towards the sustainability of labour supply for maritime operations. In the next Chapter, the literature on the retention of seafarers is reviewed; focusing on the complex range of issues impacting on effective retention among shipping industry employers.

CHAPTER 3: RETENTION OF SEAFARERS

3.1 INTRODUCTION

This Chapter reviews the strategic importance of retention within the sphere of talent management in organisations, with particular reference to the shipping industry. Specifically, three key theories relating to the attraction, motivation and attrition of employees form the basis of the theoretical framework (discussed in Chapter four) for this thesis. The Succession Planning Theory which relates to employee attraction was discussed in Chapter two (Rothwell 2005, 2010). The current Chapter focuses on the other two theories which are concerned with the motivation and attrition of employees [the Theory of Organisational Equilibrium (March & Simon 1958) as well as the Staff Motivation and Retention Model (Steel, Griffeth & Hom 2002)].

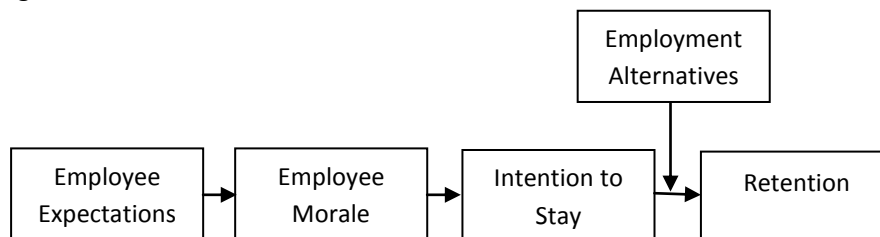
In the early parts of this Chapter, the concept of staff retention is introduced briefly with a discussion of the major theories that form the basis of employee motivation and attrition. Also, the general human resource theory on employee retention is discussed within the seafaring context. This will assist in developing a framework of factors for the identification of shortcomings within the current retention strategies of shipping industry employers. The Chapter then discusses retention as being a critical issue for the shipping industry by explaining the reasons for poor retention of ship officers. This essentially includes the identification of major factors possibly contributing to the early mobility of ship officers to landside jobs. The Chapter concludes with a summary and a call for the need to empirically test the factors related to the mobility of ship officers to determine their predictive power in that regard.

3.2 STAFF RETENTION AND TURNOVER: THEORIES AND PRACTICES

Employee retention and turnover have emerged as important issues among human resource managers in recent decades. It is now an integral part of the organisational strategy (Phillips & Edwards 2009) due to the high cost of replacements and complex nature of the turnover process (Kulik, Treuren & Bordia 2012). Thus

employee retention is now one of the most extensively researched phenomena across a wide spectrum of industries (Harris, Tang & Tseng 2002). Lockwood (2006) explains retention as the implementation of integrated strategies or systems designed to increase workplace productivity by developing improved processes for attracting, developing, retaining and utilising people with required skills and aptitude to meet current and future business needs. There is a growing body of research on staff retention (see for example, Griffeth & Hom 2001; Griffeth, Hom & Gaertner 2000; Steel, Griffeth & Hom 2002) with most conventionally based on reasons why people leave a particular organisation or job. Due to the extensive research on employee turnover, a number of models and theories have emerged. Figure 3.1 shows a traditional retention model as developed by Steel, Griffeth and Hom (2002). This model suggests that when the expectations of employees are met, their morale is improved leading to an intention to stay in the absence of better job alternatives elsewhere.

Figure 3.1: Traditional retention model



Source: Steel, Griffeth and Hom (2002, p.156)

3.2.1 Staff retention and turnover dynamics

There are changes (such as increasing cultural differences in the workforce, automation of processes and increased staff mobility) happening within organisations and the environment in which they operate due to globalisation (Griffin & Moorhead 2011; Herrmann 2012; Kronberg 2011; Oliveira 2012). As a result, many employers are wary of losing critical business knowledge when their employees leave (Hafeez & Abdelmeguid 2003). Knowledge is also lost due to increasing retirement among the baby boomer generation of workers (Alley & Crimmins 2007). It is thus important that organisations understand the reasons for high staff turnover (Armstrong 2012) to develop corresponding pragmatic measures

to address the problem. Also, this highlights the need for a better management of tacit knowledge in organisations to alleviate the side effects of voluntary turnover (Fei 2009). This is particularly crucial when one considers the high personal and organisational costs incurred when employees leave their jobs (Eby, Burk & Maher 2010; Griffeth & Hom 2001; Mitchell et al. 2001; Simon, Müller & Hasselhorn 2010; Watrous, Huffman & Pritchard 2006). The average turnover replacement cost by industry is estimated at \$20,000 US dollars per annum per employee (O'Connell & Mei-Chuan 2007). The discussion in the next two sections focuses on reasons why employees may leave or stay in an organisation.

3.2.1.1 Why employees leave

When an employee leaves an organisation or job, the term commonly used is turnover (Hausknecht, Rodda & Howard 2009; Mitchell et al. 2001). Phillips and Edwards (2009) explain that turnover is the percentage of employees leaving an organisation and research indicates that this may be for reasons such as loss of job satisfaction, lack of opportunities for advancement and organisational injustice (Boyar et al. 2012; DeTienne et al. 2012; Griffeth, Hom & Gaertner 2000; Griffeth et al. 2012; Hom, Roberson & Ellis 2008). Turnover is broadly categorised as voluntary (Baerga Cordero 2009; Hunter & Tan 2006; Maltarich, Nyberg & Reilly 2010) and involuntary (Prasad & Salih 2003; Tosti-Kharas 2009). In other words, the antecedents of staff turnover may be either individual or organisation based; and they are quite numerous (Hausknecht, Rodda & Howard 2009). Since the reasons for employees leaving a job are varied and evolutionary in nature, the use of exit interviews as a tool to analyse turnover has been advocated (Baabu, Chebolu & Balaji 2011; Jurkiewicz, Giacalone & Knouse 2009); and has been useful to an extent in that regard (Frase-Blunt 2004; Matthews et al. 2011). Such an exercise provides organisations with the needed information to provide a retention-oriented working atmosphere for employees (Arthur 2001). Sometimes, exit interviews may not be able to achieve the aim of gleaning accurate information from departing employees. As a result, it has attracted extensive criticism from management scholars who

believe that employees usually give false and biased reasons to their superiors for leaving (Kulik, Treuren & Bordia 2012).

Analysing the antecedents that instigate the movement of people out of jobs, Hausknecht, Rodda and Howard (2009) outlined 12 factors as presented in Table 3.1. By addressing the pertinent issues connected to these factors, employers may be able to reduce high attrition rate among workers.

Table 3.1: Description of retention factors

| RETENTION FACTOR | DEFINITION |
|-----------------------------------|---|
| Advancement opportunities | The amount of potential for movement to higher levels within the organisation |
| Constituent attachments | The degree of attachment to individuals associated with the organisation such as supervisor, co-workers, or customers |
| Extrinsic rewards | The amount of pay, benefits, or equivalents distributed in return for service |
| Flexible work arrangements | The nature of the work schedule or hours |
| Investments | Perceptions about the length of service to the organisation |
| Job satisfaction | The degree to which individuals like their jobs |
| Lack of alternatives | Beliefs about the unavailability of jobs outside of the organisation |
| Location | The proximity of the workplace relative to one's home |
| Non-work influences | The existence of responsibilities and commitments outside of the organisation |
| Organisational commitment | The degree to which individual's identify with and are involved in the organisation |
| Organisational justice | Perceptions about the fairness of reward allocations, policies and procedures, and interpersonal treatment |
| Organisational prestige | The degree to which the organisation is perceived to be reputable and well-regarded |

Source: Adapted from Hausknecht, Rodda and Howard (2009)

Job satisfaction, organisational commitment and job alternatives feature strongly among the factors influencing employee turnover and retention (Griffeth, Hom & Gaertner 2000; Hom & Griffeth 1995; Maertz & Campion 1998). Kronberg (2011) provides evidence that improving job satisfaction may help to lower staff turnover (Mitchell 1982) and this forms an essential aspect of both employee and organisational growth in the case of seafaring (Turker & Er 2007). In the same vein, other researchers (such as Liu et al. 2012; Maltarich, Nyberg & Reilly 2010; Trevor 2001) widely acknowledged that job satisfaction is strongly linked to voluntary turnover in organisations. This means job dissatisfaction is a major antecedent of voluntary turnover among employees (Hom et al. 1992). Hence the primary trend is

that increased levels of satisfaction decrease the probability of employee exit and vice versa (Coomber & Barriball 2007; Locke 1976; Mobley 1977; Spector 1997). The popularity of job satisfaction within the realm of employee retention means that it became and still remains one of the most extensively researched antecedents. As a result, researchers over the years have resorted to various psychometric tools to measure job satisfaction among employees, with the most popular being the Job Descriptive Index (JDI) and the highly versatile (Judge & Klinger 2008) Minnesota Satisfaction Questionnaire (MSQ).

The most common sources of job satisfaction discussed in the literature include: wages (Card et al. 2010; Cimete, Gencalp & Keskin 2003); supervision and leadership (Kim & Brymer 2011; Wong & Laschinger 2012); organisational structure and organisational culture (Glisson, Green & Williams 2012; Kennedy et al. 2002); nature of the work and job characteristics (Croser 1999; Mark & Smith 2012); and career prospects (Collins et al. 2000; Theodossiou & Zangelidis 2009). Ramlall (2004) linked the sources of job satisfaction to motivation theories as they address employee expectations and serve as incentives. Hence the degree of job satisfaction is often influenced by the extent to which incentives used to motivate employees have been able to meet or exceed their expectations (Luthans 1992).

The tools employers use to motivate employees can be classified as either intrinsic or extrinsic (Ganzach & Fried 2012; Goetz et al. 2012). Extrinsic reward systems primarily relate to salaries which are very important in the retention of employees as it is widely established in studies that low wages are inextricably linked to increased turnover among employees (Griffeth, Hom & Gaertner 2000; O'Neill, Stanley & O'Reilly 2011). Tandon and Tyagi (2012) summarises that job satisfaction exists when the working conditions and rewards match the needs and interest of employees. Even though extrinsic reward systems are influential in the retention of employees, the situation is not essentially the same for all industries. For instance, in the shipping industry, intrinsic reward schemes and organisational culture are regarded as being more effective in the retention of ship officers (Borovnik 2003;

Corkhill 2005; Nigel 2008; Turker & Er 2007). However, the emergence of third-party ship management increasingly makes it difficult for shipping companies to address issues impacting on the turnover as they are becoming less involved in the recruitment of people working onboard their ships. Therefore, the direct interaction between employees (seafarers) and shipping companies is quite limited. To this end, De Silva, Stanton and Stanton (2011) recommends that companies to whom the management of crew is outsourced need to focus on building a strong organisational culture which addresses the limited interaction between employers and seafarers to enhance retention.

The literature shows a strong relationship between job satisfaction and the retention of employees (Griffeth, Hom & Gaertner 2000; Hom et al. 1992; Liu et al. 2012). Most of the literature on employee turnover is based on the theory of organisational equilibrium that was propounded in 1958 by March and Simon (This theory is discussed in Chapter 4 as it forms an important component of the conceptual framework of the thesis). Hausknecht, Rodda and Howard (2009) provide a deeper explanation of the theory which identifies two driving factors behind employee turnover – desirability of movement and ease of movement. Desirability of movement defines the state of the individual's satisfaction with the job, whereas ease of movement generally reflects perceived or actual job alternatives in the external market. According to Mobley (1977), the theory of organisational equilibrium implies that when people become dissatisfied with their jobs, the most immediate decision is to search for alternatives, analyse options they come across and then leave if there is a better job available. The theory of organisational equilibrium has had many improvements and modifications over the years. Table 3.2 gives a summary of notable employee turnover models that have been designed since March and Simon (1958) and their respective components and modifications (Mitchell et al. 2001). In recent studies, it was found that staff may also leave an organisation for exogenous reasons which are primarily family-based (Michel & Michel 2012; O'Neill et al. 2009). Others reasons given byAbbasi and

Hollman (2000) include poor managerial style and attitude from bosses who rely on outmoded techniques in the hiring and management of staff.

Table 3.2: Classification of retention models

| RETENTION MODEL/CATEGORY | DETAILS OF CONSTRUCTS | CONTRIBUTING AUTHORS |
|--|---|--|
| Traditional Attitude Model (Attitudes and Alternatives Model) | Job Satisfaction, Organisational commitment, Ease of movement | March and Simon (1958); Mobley (1977); Steers and Mowday (1981); Price and Mueller (1981); Hom and Griffeth (1995); Maertz and Campion (1998); Hom and Griffeth (1995); Jaros (1997); Blau (1993). |
| Modified Traditional Attitude Models | Occupational commitment, Perceived organisational support, Justice perceptions, Burnout | Coleman and Cooper (1997); Shore and Tetrick (1991); Aquino et al. (1997); Wright and Cropanzano (1998). |
| Non-conventional Models | Predictors and criteria for organisational attachment (lateness, absences), Individual differences | Hulin (1991); Barrick and Mount (1996); Chan (1996). |
| Turnover and Spill Over Model | “Non-work” influences (family attachments or conflict between work and family roles), non-work commitments (family, hobbies and church) | Price and Mueller (1981), Steers and Mowday (1981), Mobley (1982), Marshall, Chadwick and Marshall (1992) |
| Unfolding Model | Relative satisfaction, shock (relocation of spouse) | Lee and Mitchell (1994); Lee et al. (1999) |

Source: Adapted from Mitchell et al. (2001) and Hausknecht, Rodda and Howard (2009)

3.2.1.2 Why employees stay

Although the literature on employee retention tends to focus on reasons why employees may leave a job or an organisation, some researchers also focus on the unconventional aspect of retention – examining employee reasons for staying (see for example, Cho, Johanson & Guchait 2009; March & Simon 1958; Mobley et al. 1979; Price & Mueller 1981; Sengupta & Dev 2013; Steel, Griffeth & Hom 2002).

There are many reasons why employees may stay with an organisation. In Phillips and Edwards (2009) for example, the authors imply that employees are more likely to stay longer with an organisation as a result of loyalty which is borne out of job satisfaction, that is, how an individual feels about the job tasks and work

environment (Turker & Er 2007). Job satisfaction according to Hausknecht, Rodda and Howard (2009), is the most primary determinant of retention among employees; as it is significantly linked to the meeting of both economic and non-economic needs of employees (Hallowell, Schlesinger & Zornitsky 1996). The case for such an assertion is further strengthened by Lambert et al. (2012) who concluded that companies can lower the possibility of quitting among employees through the introduction of packages that increase satisfaction and organisational commitment. Studies have found there is lower probability of quitting among employees committed to an organisation compared to those who are less committed (Griffeth & Hom 1995; Igbaria & Greenhaus 1992). Although job satisfaction plays an integral role in improving organisational commitment of employees, little research has been done in this respect for the shipping industry (Turker & Er 2007). There is a need for empirical testing to identify the key components of what constitutes job satisfaction among seafarers. This may lead to a better understanding of how job satisfaction may influence organisational commitment in the shipping industry.

Using an unorthodox approach, Gardner, Wright and Moynihan (2011) stress that organisational commitment among employees can be enriched through empowerment-enhancing practices in order to realise motivated staff. Even though increasing employee satisfaction can lead to improved organisational commitment on the part of employees, market forces have emerged as an important issue which proves to be an obstacle (Cappelli 2000). Also, managing the commitment of employees to an organisation is becoming more difficult in recent times because of the generational differences in attitudes of employees. For example, Schalk (2004) found that Generation X employees are more committed to an organisation as compared to Generation Y who rather devote their attention to the job and its characteristics. In other words, the priorities of younger workers differ from that of older workers (Nankervis et al. 2011). This finding suggests a strong association between organisational commitment and age of employees; hence employers may

need to take that into consideration during the appraisal of existing staff retention strategies and policies.

Motivation is also another important aspect of why people may stay in an organisation or a job. Staff motivation and loyalty form the crux of retaining employees in an organisation (Ramlall 2004). This may vary according to generation (either Generation X or Y) as the younger workforce are more ubiquitous with jobs and employers compared to the older generation (Armstrong 2012). Findings from the work of Phillips and Edwards (2009) has demonstrated a strong association between employee loyalty and commitment by explaining how loyal employees remain with their employers for a long period. Hence it naturally follows that when employees are adequately motivated, they are deemed satisfied and therefore stay within an organisation for a longer period of time (Hausknecht, Rodda & Howard 2009). There is however a long standing debate in the literature as to whether job satisfaction or organisational commitment has a higher impact on turnover among employees (Deery 2008). Nevertheless, organisational commitment could be construed as a product of job satisfaction. The following sections focus on retention within the context of seafaring. The reasons why retention has become a critical issue within the shipping industry is discussed with the highlighting of factors that could possibly influence the movement of seafarers to landside jobs.

3.3 CREW RETENTION: A CRITICAL ISSUE

Like many other business sectors (Phillips 2012; Phillips & Edwards 2009), retention is a major issue within the shipping industry. The retention of maritime expertise, particularly within the offshore sector of shipping among ship officers, is a challenge for industry employers due to the effects of globalisation on the industry. For instance, forces of globalisation such as relaxation in shipping policies and immigration rules have opened up the labour markets of nations. The resulting ease of mobility for labour means that ship officers can move from the deep sea (blue water) sector of one country to the oil and gas sector of another for employment—a phenomenon that was not initially common. This has created a shortage of ship

officers, especially for the deep sea (blue water) segment of the shipping industry (BIMCO/ISF 2010). Donner (2008) examines that in a bid to address the shortage of ship officers, maritime industry employers are lured by poor human resource practices such as crew poaching, faster promotion of newly qualified officers and other temporary measures which include delaying the exit of officers due for retirement. The reemployment of retired officers is also another by-product of the poor human resource practices among shipping industry employers. Poor human resource practices means that the employers of seafarers are using measures that only provide temporary relief. What the shipping industry needs is a long-term and industry-wide approach to the prevailing human resource challenges.

Furthermore, Asyali and Zorba (2009) explain that most of the poor human resource practices among shipping companies are triggered by economic reasons – a need to reduce operational costs. As a result, the most common cost cutting practices among shipping companies include: scrapping existing cadet programmes, reducing costs associated with seafarer health, lowering of crewing levels, increasing onboard maintenance and repairs instead of replacements. The foregoing practices are connected to the prevailing poor human resource strategies among shipping industry employers and they were found to negatively influence the retention of cadets and officers (Haka et al. 2011). Thus, the purpose of the current Chapter is to highlight the reasons why retention is a critical issue within the shipping industry.

As a globalised industry (McKay 2007b), shipping is exposed to many challenges that makes the retention of ship officers quite difficult. Notably, with poor living conditions onboard (Lindgren & Nilsson 2012) and inadequate contact with family on land, retaining ship officers at sea is becoming more challenging (Horck 2010a). Also, the proliferation of maritime regulations has increased the work load on seafarers which in turn generates fatigue and stress. This is evident in the increased paperwork that needs to be done by ship officers on daily basis (Knudsen 2009; Squire 2004). As a result, it is now difficult to retain ship officers at sea. This probably explains why seafaring is increasingly becoming a profession for crew from

developing countries, as officers from traditional supply nations are shying away from the industry due to poor working conditions onboard and diminishing worklife balance (Dimitrova & Blanpain 2010). Poor working conditions embrace the general deterioration of the overall working environment on the average modern merchant vessel which may lead to more stress and fatigue (Alderton 2004; Orosa & Oliveira 2012). A typical example is the increased isolation that has been occasioned by the destruction of the onboard social fabric due to the advent of information communication and banning of pubs and bars onboard ships by many shipowners. Some of the issues with poor working conditions are imposed by the peculiar nature of the work of seafarers (Lutzhof et al 2010; Lutzhof, Grech & Porathe 2011; Oldenburg & Jensen 2012). Thus, Asyali and Zorba (2009) concluded that improving working conditions onboard ships is essentially paramount for the retention of ship officers at sea.

There are many issues peculiar to shipping that makes retention a critical issue for industry employers. For instance, rapid technological improvements have made ships become economically obsolete before their time of physical deterioration (Button 2010). The consequent destruction of the onboard social fabric with the advent of emerging communication technologies creates loneliness and boredom. This can then lead to increased stress levels for ship officers who as a result may move to landside jobs. Also, the highly cyclical nature of the shipping industry creates a lack of employment opportunities during periods of economic downturn. Barnett et al. (2006) explain that this has forced many people to leave the seafaring profession due to future career uncertainty. All these developments have had a negative impact on the career experience of seafarers. Compared to other modes of transport, seafaring remains a high risk occupation with disturbing statistics of mortality rates (Bloor, Thomas & Lane 2000). This can be a source of discouragement to potential entrants as well as those already working within the industry.

Though retaining ship officers at sea is an industry-wide issue, the retention of ship officers from traditional crew supply regions is even more difficult (Magramo & Gellada 2009). The explanation for this trend could be the difference in the reasons why people in traditional and non-traditional maritime nations take up a career in seafaring. Whereas people from the latter are motivated by economic reasons, those from the former often give pre-eminence to the seafaring lifestyle. Thus, as working conditions at sea is changing, especially in recent years (McLaughlin 2012), retaining ship officers from the traditional maritime nations is proving more difficult as the industry is becoming less attractive to them. Silos et al. (2012) summarise that from a personal and professional perspective seafaring is becoming less attractive among seafarers from OECD countries due to the following reasons:

- Reduction of time vessels spend in port
- Progressive decrease in the size of crew onboard
- More responsibilities for all levels of crew; triggered by regulations and maritime technology
- Isolation and being away from family for longer periods; and
- Apparent lack of shore leave for seafarers

Some of the above issues as identified by Silos et al. (2012) create high workloads which lead to stress among seafarers. High stress levels are an issue that needs to be given adequate attention and addressed among seafarers as it can potentially trigger an increase in suicide which has become a major issue among the seafaring population (Jeżewska & Iversen 2012).

Ironically, interest among junior officers from new seafarer supplying regions is high as they aspire to become senior officers. However, shipowners from traditional maritime countries are sceptical about their competence and fail to promote them to the level of officers as a result (Eler et al. 2009). This constitutes a form of cultural discrimination among shipping industry employers with damning consequences for the supply of ship officers. Carter (2005) highlights the effect of crew discriminatory practices among shipowners by examining the relationship

between unequal conditions of service (in terms of wage rates, length of duty period, age, nationality rank and holiday duration) and stress among seafarers. Furthermore, Parlak and Yildirim (2011) found that seafarers from developing countries are subjected to several discriminatory and unfair labour practices which they are unable to complain about for the fear of losing their jobs. In a nutshell, the shipping industry is one that is highly responsive to economic vicissitudes and this has led to tangible changes that need to be taken into consideration by human resource practitioners in order to improve the retention of officers in particular and seafarers in general.

3.4 'SHORECUPATIONAL' MOBILITY OF SEAFARERS

The shortage of ship officers and future forecast of an increase in their demand instigates a need for thorough understanding of the mechanisms by which seafarers move from ship to shore and across the industry (Haka et al. 2011). To effectively identify the factors that propel the mobility of ship-officers to landside jobs, it is important to reasonably understand what motivates people to enter into seafaring (as discussed in Chapter two), what sustains their interest to stay onboard and what demotivates them that leads to turnover. Generally, the literature (see for example, Barnett et al. 2006; Gekara 2009; Glen 2008; Haka et al. 2011; Magramo et al. 2010b; Pekcan, Barnett & Gatfield 2003) broadly categorises the factors triggering the movement of ship officers from sea to shore as psychosocial, operational, organisational and structural.

The psychosocial issues influencing the movement of seafarers from sea to landside careers primarily relates to worklife balance, work environment and ergonomics, as well as job security and satisfaction. In a study conducted among Danish seafarers, Haka et al. (2011) concluded that psychosocial issues account for 85% of the reasons for which seafarers move from sea to pursue a landside career. Apart from psychosocial issues, structural changes within the shipping industry also create many challenges for shipping companies to effectively retain their skilled talent (Cahoon & Haugstetter 2008; Cahoon, Haugstetter & Bhaskar 2010). The era where

seafaring was viewed as a lifetime profession may now have come to an end. Structural changes in the industry such as advanced handling technology, reduced time in port, and the remote location of ports away from city centres have changed the very fabric of life at sea (Cahoon, Caesar & Fei 2014). On the operational side, with the use of a skeletal ship crew on-board and increased workload, seafaring is becoming less attractive to seafarers at sea. As a result, seafarers are becoming highly susceptible to stress and other psychological hazards during their career (Jaremin 2009). This means the seafaring career may no longer be viewed as a long term proposition; leading to the eventual movement to landside careers.

Some researchers (such as, Fei 2009, 2011; Fei, Chen & Chen 2009) argue that the movement of ship officers to shore-based positions should be viewed as an opportunity rather than as a problem as it aids the distribution of knowledge. However, the occupational mobility of ship officers to landside positions does not only create a vacuum that needs to be filled onboard ocean-going vessels (Gekara 2010), but it also has the potential of making the seafaring profession unattractive to new entrants if the reasons for such a phenomenon are negative.

3.4.1 Ship officer attrition

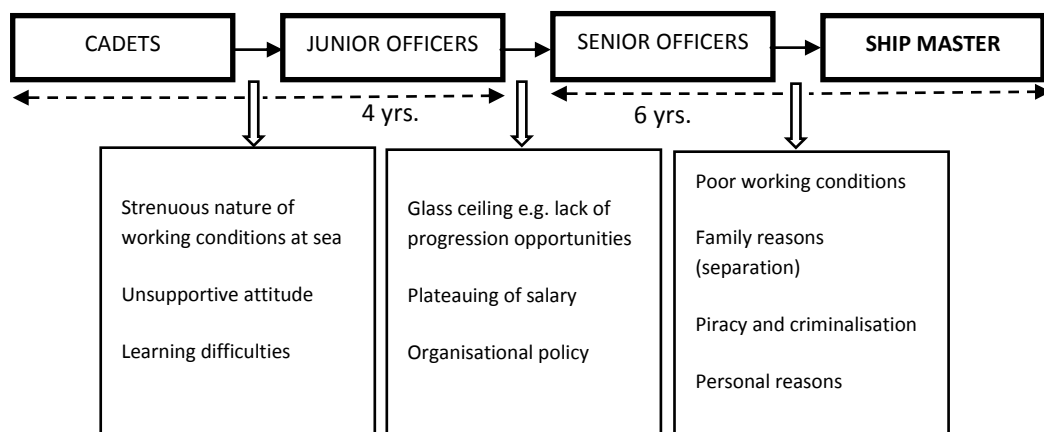
The retention of ship officers onboard vessels certainly remains an important issue within the seafaring sector; with a reported one out of every ten officers leaving the industry every seven years on average (BIMCO/ISF 2005). Pekcan, Barnett and Gatfield (2003) suggest that many seafarers are no longer staying at sea beyond ten years and those who do otherwise will probably remain until retirement; yet such category of people is increasingly becoming rare as a result of deteriorating working conditions onboard. Considering that it takes an average of four years to produce junior officers and an additional six years to have them become senior officers (Eler et al. 2009), the statistics of many seafarers leaving within ten years (Ljung 2010; Moreby 1975; Shiptalk 2008) is quite disturbing since most may not get to become shipmasters thereby worsening the prevailing labour crisis at the higher echelon of a ship's crew complement.

Figure 3.2 provides an overview of the various points along a seafarer's career pathway where attrition occurs. The first stage of exit among seafarers occurs during the period of cadetship and this usually happens in the first 14 months due to the following factors:

- Inability to cope with the strenuous nature of life at sea
- Classroom learning difficulties; and
- Inhumane and unsupportive attitude from mentors at sea (Gekara 2008, 2009).

Also, attrition is prevalent among integrated ratings and cadets who progress to the rank of junior officers (Obando-Rojas, Gardner & Naim 1999). The literature (see for example, Gekara 2009; Gould 2010; Pekcan, Barnett & Gatfield 2003) suggests that all seafarers can become shipmasters and this is also accepted globally (Gekara 2008), but that may not be the case at the organisational level. Figure 3.3 shows that at a certain stage in the career of seafarers, there may be a convergence of termination factors which makes it difficult for them to become senior officers and hence leave to landside jobs (Cahoon, Caesar & Fei 2014). At this stage the seafarer may be in their late 20s or early 30s, where externalities are also having an impact on voluntary turnover decisions, such as becoming married, beginning a family or being concerned about ageing parents.

Figure 3.2: Points of attrition in a seafarer's career



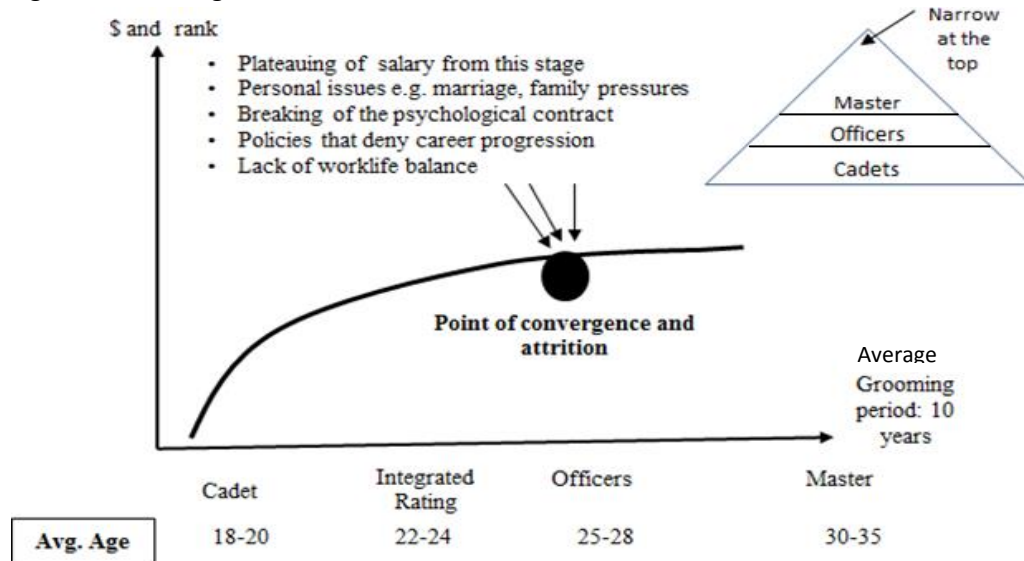
Source: Caesar, Cahoon and Fei (2013, p. 5)

The lack of career prospects also feature strongly among the reasons for high attrition among cadets in traditional maritime nations (Gekara 2008, 2009) as uncertainty of future employment demotivates them and deflates their morale to undergo the entire training programme. In a study among Danish seafarers and specifically officers, Haka et al. (2011) found that the major reasons for leaving seafaring are: spending a long time away from home and family, problems posed by cultural differences, isolation or loneliness with officers.

3.4.2 Reasons for poor retention

The reasons for poor retention among seafarers may equally represent the key factors identified in the literature (see for example, Mack 2007; Mitroussi 2008; Suppiah 2009a; Theotokas & Progoulaki 2007; Thomas, Sampson & Zhao 2003) as being responsible for the phenomenon of ship officers moving to landside jobs. These reasons as elaborated by Barnett et al. (2006) include: lack of opportunities for career progression at sea, the need for young officers to start or build a family, sudden emergence of an irresistible landside opportunity and poor working conditions onboard (influenced by increased workload, stress, loneliness, isolation and cultural diversities). Although shipping industry employers tend to implement several strategies to address ship officer attrition and improve retention (Bajpae 2005; Holder 2005; Wiseman 2004), the impact made is quite insignificant due to many reasons (such as a lack of a concerted efforts among industry employers and poor staffing practices).

Figure 3.3: Convergence of termination factors in the life of seafarers



Source: Cahoon, Caesar and Fei (2014, p. 93)

3.4.2.1 Poor HR practices of employers

Poor human resource practices could be one of the reasons why the retention of ship officers is becoming difficult. For instance, shipping industry employers tend to stratify their employees based on origin and this largely influences staff promotion onboard vessels with some nationalities having pre-eminence over others due to the seemingly flawed perception about the quality of seafarers trained in emerging crew supply countries (Lane 2002; Wu 2004). Hence for some nationalities, less opportunity to rise up the hierarchic ladder onboard to become a senior officer triggers their movement to land or they may remain at sea yet unhappy; but the former is usually the likely outcome. As per the Herzberg employee motivation model (Herzberg, Mausner & Snyderman 1993), advancement is a key tool towards the retention of employees of which seafarers are no exception (Lindgren & Nilsson 2012), hence lack of opportunities for advancement onboard causes them to leave to land. This may certainly complicate the task of retaining crew onboard ships.

Other pertinent issues that constitute poor human resource practices among shipping industry employers and raised by seafarers as reasons for them leaving the industry include: the ill treatment of seafarers due to unfair contracts, desertion from shipowners and salary arrears (Couper 2000a), lack of shore leave, inability to

contact families at home from sea, highly pressurised working conditions and the additional workload instigated by the emergence of numerous international regulations which are in themselves a necessary evil. The interaction between poor human resource practices among shipping companies and periodic changes within the macroeconomic environment has ultimately created labour complications that need to be addressed in order to improve retention among seafarers.

3.4.2.2 Generational issues

Another important issue that helps in understanding why the retention of seafarers is quite difficult is the generation gap factor (Cahoon & Haugstetter 2008). There are a number of studies where the researchers agreed that generation gap has much influence on the progressive mobility of ship officers to land-based jobs. There are differences in the level of expectations between the younger and older generations in the seafaring industry (Cahoon & Haugstetter 2008). Many of the older generation of seafarers indicate they were lured to seafaring by the desire for adventure due to the stories they heard from their predecessors about foreign lands (Mack 2007). However, the adventure element has transmogrified into a kind of subjective phenomenon that shipowners cannot rely upon to retain crew (Horck 2010a). Thus, the era where seafaring was viewed as a lifetime profession has elapsed; times have changed greatly. According to Deloitte (2011) the perception that a career in seafaring requires commitment to a life at sea deters many young people from considering it as a profession.

3.4.2.3 Increased demand from landside

Retaining ship officers at sea is quite difficult when one considers the increase in demand for their operational skills among landside employers. There are many shore-based career positions that ship officers occupy as they move to the onshore from the offshore sector of the maritime industry (Barnett et al. 2006). In Gardner and Pettit (1999) and Gardner, Pettit and Thanopoulou (1996), the authors classify shore-based positions available to ex-seafarers into business sectors; maritime operations (water-based and land-based), financial and other services, shipbuilding and maritime equipment as well as miscellaneous (such as insurance, education and

training). The increased demand for the expertise of ship officers and other categories of seafarers among landside employers is given further impetus by the relatively high remuneration rates being offered for the positions. For instance, Wild (2012) discovered that high salary is often offered by oil companies to attract people with seafaring experience to onshore jobs. This serves as an additional source of competition for the already limited pool of officers.

3.4.2.4 Peculiar nature of the seafaring career

The peculiar nature of working in the shipping industry constitutes one of the key reasons why it is quite difficult to retain seafarers to work onboard ships (De Silva, Stanton & Stanton 2011; Thomas, Sampson & Zhao 2003). All seafarers essentially share similar reasons for their departure to land (Barnett et al. 2006); with separation from partner and family cited as the common reason (Barnett et al. 2006; Rochdale 1970). Hence many seafarers having families become less satisfied at a point in time with their jobs at sea and this significantly influences their decision to reduce the number of years spent at sea (Forsyth 1990). According to Iversen (2011) separation worsens loneliness among seafarers and this coupled with fatigue and stress (Parker et al. 1997) creates mental depression – a cause of suicide among seafarers. For instance, out of 9,591 seafarer deaths recorded between 1976 and 2005, 625 were attributed to suicide (Iversen 2011). Also, Iversen (2012) further includes that between 1960-2009, 1,011 out of the 17, 026 deaths recorded among seafarers is due to suicide and mental depression. Early researchers (such as Forsyth & Gramling 1990; Hill 1972; Moreby 1975) acknowledged that separation causes disruption of family and marital life and this is a cause of high attrition among seafarers (Haka et al. 2011; Oldenburg et al. 2009). Separation in itself is stressful for both seafarers and their partners; leading to the loss of a critical psychogenic protective factor onboard (Oldenburg & Jensen 2012).

Hence separation does not only affect the seafarer at sea but also the partner at home (Thomas, Sampson & Zhao 2003). According to Jeżewska and Iversen (2012) the impact created by separation of seafarers from their families is multi-dimensional and its severity is influenced by several factors (spouse, children,

working conditions, contact with family, among others). Furthermore, Thomas and Bailey (2006) concluded that the periodic separation of male seafarers from their families, creates a loss of their masculine identity and authority within the family; which is a root cause of many marital problems in seafaring families (MCFG 2007; Thomas & Bailey 2009). Among women seafarers also, Thomas (2004) found that the desire to be at home with their partner and family may influence a decision to leave the sea. It is clear that the problem of isolation affects all seafarers regardless of their gender.

Thus, the uniqueness of occupations in the shipping industry partially contributes to the difficulty in retaining people to work at sea (Moreby 1975). Other dimensions of the industry's peculiarity are stress and fatigue which is induced by high workload, extensive paperwork and reduced crew levels. Zaar and Hammarstedt (2012) reported that stress and fatigue contributes greatly to the difficulty in retaining young seafarers as they tend to leave earlier in their shipboard career to pursue landside jobs. It is however important to note that certain aspects of the uniqueness of the seafaring industry with regards to workplace safety and fatigue are present among people working in the Antarctic, defence, trucking and steel plant industries (Medlin, Lange & Baumann 1994; Parkes 1998; Sutherland & Flin 1989). However, the socio-geographical isolation is evidently unique to the seafaring profession.

With regards to the peculiarity of the shipping industry and its impact on the retention of seafarers, one area that has caught the attention of researchers (see for example, Caesar, Cahoon & Fei 2013; Moreby 1975) over the years is the breaking of the psychological contract. In the next section, the psychological contract in general human resource literature is discussed and linked to the seafaring profession. The discussion highlights pertinent issues to further help understand why seafarers leave ships to landside jobs.

3.4.3 The psychological contract

The psychological contract is explained as being what employees expect to give to and receive from their employers. It primarily revolves around the fair exchange of contributions and inducements (Lambert 2011) between both parties as shown in Figure 3.4 (French et al. 2011). Any difference between the contributions of employees and inducements of the organisation is viewed as an imbalance in the social exchange relationship (Suazo 2011; Zhao et al. 2007).

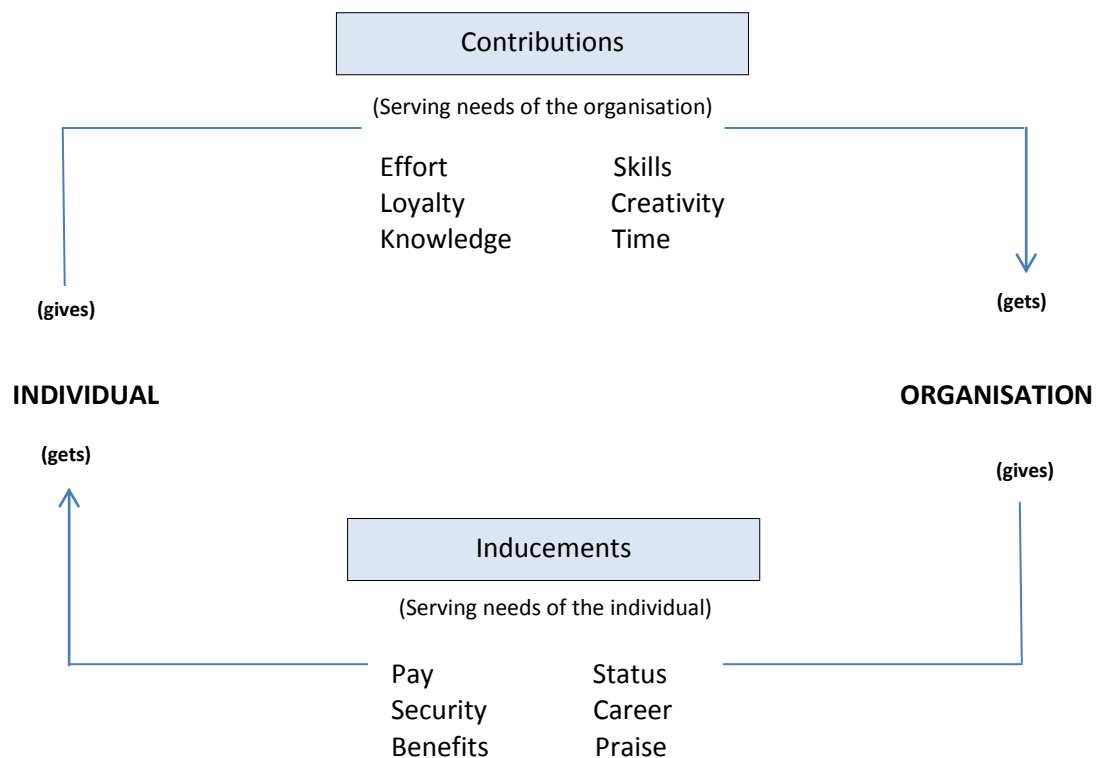
In Robinson (1996), the psychological contract is portrayed as intrinsically perpetual and subjective based on the individual's perception and deemed breached when expectations are not met (Griffin & Moorhead 2011; Morrison & Robinson 1997; Peirce et al. 2012; Turnley & Feldman 2000). There are two main parties to an employment contract – employer and employee (Chien & Lin 2012; Restubog, Bordia & Bordia 2011). Studies have found that both parties usually have different interpretations of the terms and conditions of the psychological contract (Lester et al. 2002; Morrison & Robinson 1997; Parzefall & Coyle-Shapiro 2011; Robinson 1996). Hence a breach by one party may not necessarily be acknowledged by the other.

Recent research on the breach of the psychological contract essentially embodies a discourse on the consequences that it may have for both individuals and the organisation (Bordia et al. 2010; Cassar & Briner 2011; De Lange et al. 2011; Han, Song & Chen 2011; Robinson & Wolfe Morrison 2000); with individuals (employees) experiencing frequent psychological contract breaches in the modern workplace (Stoner, Gallagher & Stoner 2011).

A breach of the psychological contract often leads to negative consequences in the modern workplace (Arshad & Sparrow 2010; Bal et al. 2008; Bal & Smit 2012) such as: anger and frustration (Robinson & Wolfe Morrison 2000), employee dissatisfaction (Cross, Barry & Garavan 2008; De Cuyper & De Witte 2006), loss of organisational commitment (Briggs, Jaramillo & Weeks 2012; Sturges et al. 2005) and adverse employee performance (Conway & Coyle-Shapiro 2012; Turnley et al.

2003). Generally, staff turnover is noted as a common outcome (Bordia et al. 2011; Wang, Zhu & Cong 2009) of many psychological contract breaches. Some research (see for example, Coyle-Shapiro & Conway 2005; Henderson et al. 2008) has also shown that the fulfilment of the psychological contract does have a positive impact on employee attitudes. Between a breach and fulfilment of the psychological contract, Conway, Guest and Trenberth (2011) concluded that a breach has a relatively quicker effect on employee attitudes and behaviours.

Figure 3.4: A healthy psychological contract means balance in inducements and contributions



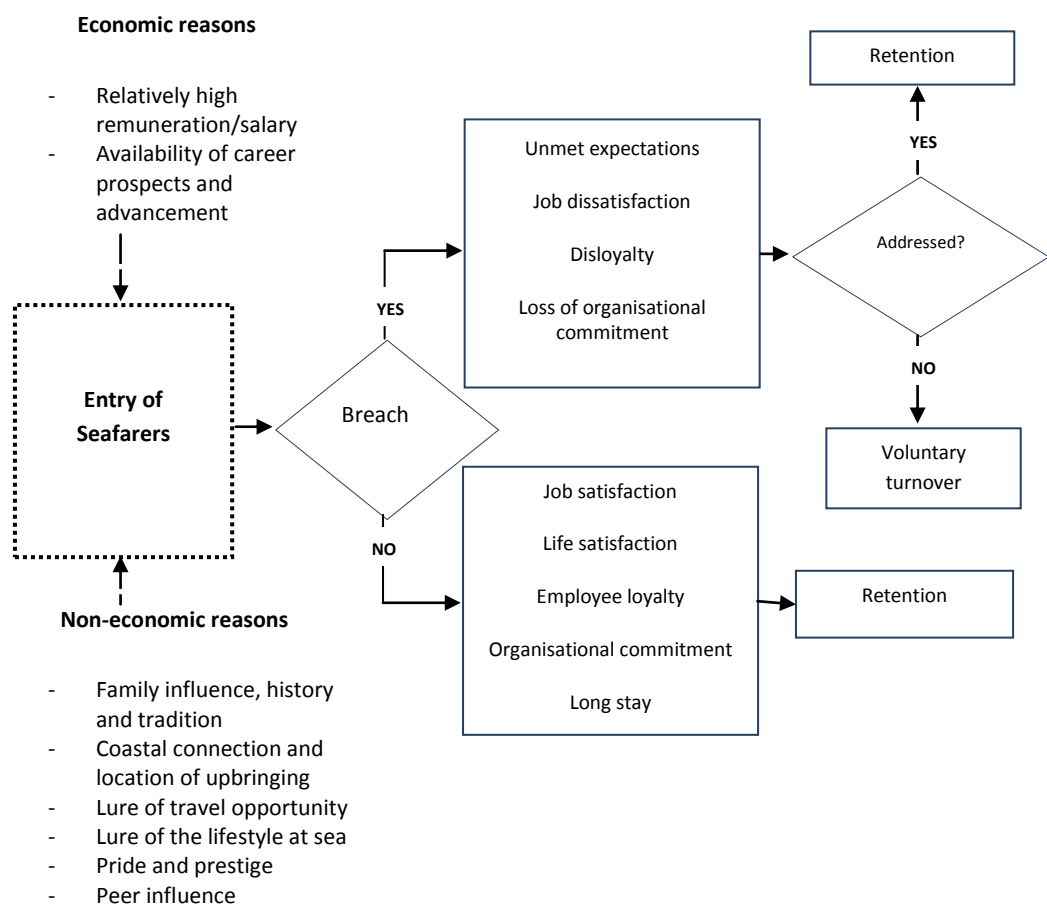
Source: French et al. (2011, p. 22)

3.4.3.1 Seafarers and a breach of the psychological contract

Figure 3.5 provides an insight into what happens when the psychological contract of seafarers is broken. Moreby (1975) indicates that when people enter the seafaring profession, the breaking of the psychological contract often culminates in their eventual exit. Thus, a lot of people may be attracted to seafaring as a profession; but upon entering, their experiences (realities) may not tally with the expectations and this leads to the breaking of the psychological contract between them and the employer. This calls for a need to undertake elaborate psychological tests during

the recruitment of employees (Cole 2003; Herriot 1988; Kaplan & Saccuzzo 2012) to gain a better understanding of candidates and their career ambitions (Armstrong 2012). A detailed psychological test is likely to produce more profound insights about the potential seafarer. Also, more accurate advertising and development of position descriptions by the employer may be needed. The work of Cross, Barry and Garavan (2008) also asserts that paying attention to the recruitment stage is very crucial in managing the expectations of employees as per the psychological contract. This according to Ljung (2010), for the shipping industry, has a relationship with the application of flexibility to issues such as working hours, leave periods, rotation systems and holidays and demands an effective management of expectations and realities by industry employers (Cahoon & Haugstetter 2008).

Figure 3.5: Breaking of the psychological contract of seafarers



Source: Author

Any refusal on the part of shipping industry employers to meet the expectation of seafarers may lead to the erosion of their motivation and subsequent turnover (Haka et al. 2011). Contrary to what is expected, findings made by Kundu, Malhan and Kumar (2007) concluded that the application of flexibility to work-related issues is not strongly practised by shipping companies; which leads to the loss of critical talent that is difficult to replace onboard ships (Turker & Er 2007). The management of expectations is therefore crucial to the retention of seafarers when considered in the light of findings made by O'Neill, Stanley and O'Reilly (2011) who concluded that organisations can achieve long-term satisfaction among employees through effective management of expectations as opposed to pursuing unworkable goals.

Thus, poor human resource practices reported among shipowners (Donn 2003; Progoulaki & Roe 2011) breeds unfulfilled expectations from the perspective of employees which degenerates into a breach of the psychological contract; leading to a loss of employee satisfaction, loyalty and organisational commitment. Overtime, issues relating to the uncertainty of wages, stress and other labour challenges that are not common to onshore professions have emerged in the offshore sector of shipping (Couper 2012); and this constitutes one of the major reasons why job satisfaction is an important issue among seafarers working at sea (Turker & Er 2007). The same pattern is found in the merchant navy which is also experiencing officer shortage due to the absence of a sound strategy for the recruitment and retention of officers (Slocum 2012). This chain of events ultimately culminates in the exiting of the employee from an organisation; and such has been the recent trend among ship officers as well as other categories of seafarers.

Generally, the findings in the literature (see for example, Lo & Aryee 2003; Turnley & Feldman 1999; Turnley & Feldman 2000) seem to support the assertion that the fulfilment of the psychological contract may lead to employee satisfaction – an integral element of organisational commitment and long service (Albrecht 2006; Coyle-Shapiro & Kessler 2000; McKay et al. 2007). In this regard, a better approach for shipowners and other employers within the shipping industry with regards to

the early exiting of ship officers will be to assess the expectations of ship officers and employ a plausible system to ensure that they are met. This should be executed by taking into account existing disparities in the expectations of ship officers based on their cultural background, qualifications, experience and age group (generational differences).

To effectively address the challenges associated with the execution of the psychological contract, proper management of the relationship between employers and employees is needed (Caesar, Cahoon & Fei 2013). Managing such a relationship appears to be a great challenge in the case of seafaring as most seafarers are employed on short-term employments contracts (Mitroussi & Notteboom 2012). This practice of short-term contracts, needs to be revised in light of the findings of Barnett et al. (2006) which suggests that long-term contracts can be effective towards improving commitment among seafarers – an important aspect of employer-employee relationships.

The next section focuses on issues connected to the working life of seafarers, especially onboard. The discussion highlights how the issues raised impact on the life of seafarers at sea. For each of the factors discussed, effort is made to show how they may predict the movement of ship officers to landside jobs. Thus the focus is on the impact of these factors on retention of seafarers.

3.5 FACTORS IMPACTING ON SEAFARER RETENTION

The environment within which seafarers primarily work is constantly changing. These changes have both positive and negative aspects. With regards to the retention of ship officers, some of the issues emerging in relation to the working life of seafarers at sea could potentially predict whether they may stay onboard or move to landside jobs. Whereas some of the issues discussed are inevitable, shipping industry employers do have control over most and could therefore address them accordingly to improve the retention of ship officers within the global shipping industry.

3.5.1 Criminalisation of seafarers

One of the key issues connected to the working life of the modern day seafarer is the phenomenon of criminalisation. The criminalisation of seafarers is a very important issue within international shipping circles due to the negative impact that it is capable of having on the recruitment and retention of ship officers. It deserves utmost attention as the negative experiences of serving seafarers when arrested is capable of discouraging the new generation from considering a career at sea. In recent times there have been countless situations in relation to the unlawful arrest of seafarers (Kirby 2011, 2012). Mitroussi (2008) found that by criminalising unintentional marine pollution, the industry runs the risk of exposing seafarers to media criticism (Theotokas & Bissias 2013) as well as discouraging disclosure of needed feedback regarding accidents in order to prevent their occurrence in the future. In addition, research suggests that criminalising seafarers lead to negative repercussions for industry image and safety (Dekker 2003, 2011). Couper (2012) explained that seafarers experience neglect from their employers during periods of maritime pollution which makes them vulnerable to both the media and the general public.

Many cases of neglect and eventual imprisonment of ship officers have been recorded within the literature (see for example, Gold 2004; ISF 2010). In a compilation of the ten major maritime pollution cases recorded between 1989 to 2012 within the global shipping industry, the literature (Gold 2004; ISF 2010; Seafarer 2011) summarises that in all ten cases, the ship masters were arrested and imprisoned for an average of 7.5 months before release. Others spent 18 months in prison with the most recent sentence in the Costa Concordia's case being 34 months (ABC 2013). In some cases, they were not released and had their licence temporarily suspended. There were also cases where the entire crew and ship were abandoned (without food, fuel supply and communication facilities) and detained (ILO 2013). Neglect from employers could be due to increased crewing costs (due to criminal sanctions and insurance) associated with the criminalisation of seafarers (Martin 2011; Mitroussi 2008).

Not all error-inducing accidents like the ones that occur at sea can be blamed on the operator (Perrow 1984). Unfortunately, seafarers are blamed for many accidents at sea. Kirby (2011) argued that the trend of criminalisation where blame is shifted to the seafarer in times of accidents needs to be condemned as it is having negative effect on the individual seafarer and the shipping industry. It is also important to note that regardless of whether an accident is intentional or inadvertent, seafarers have the right to due process. Very often when accidents occur, the ship officers are arrested and incarcerated without giving due consideration to the cause of such a calamity. As Gold (2004) explains, it appears ship officers are held as responsible for actions over which they have little or no control. This may lead to an erosion of the traditional privilege and honour associated with command positions onboard ships.

The criminalisation of ship officers could potentially undermine succession planning efforts in shipping organisations as cadets and junior officers may be unwilling to aspire for higher positions onboard vessels. Such a syndrome is more likely to occur as the lower rank seafarers may be wary of future imprisonment for accidents that they have no control over. Also, Peachey (2007) explains that this syndrome of fear and caution among lower rank seafarers will have negative repercussions for the retention of ship officers onboard ships. Instead of criminalising seafarers for incidents they may have no control over, Manuel (2011) recommends a need to focus on addressing the precursors that lead to the accidents for which seafarers are criminalised. Thus, since criminalisation negatively impacts on the morale (Joshi 2005; Kirby 2012; Mitroussi 2008) of all categories of serving seafarers (such as cadets, junior and senior officers), it could be a critical factor in decisions related to staying to work onboard at sea or moving to a landside job.

3.5.2 Serving time and challenges of cadets

Going by tenets of the STCW-95 and the 2010 Manila Amendments (Yabuki 2011), training and transfer of skills for seafarers is deemed inadequate until the completion of 12/6 months compulsory onboard training (Bonnin et al. 2004). However, the onboard aspect of training seafarers is not bereft of challenges which negatively impacts on efforts aimed at improving retention at sea. In Gould (2010,

p. 280), the experiences of cadet officers onboard ships during their training is described in the following phrases, “Physical confinement, restricted diet, distanced from family and unsupportive attitudes and hostility from mentors onboard”. These collections of experiences largely contribute to cadet attrition (Gekara 2008, 2009) as it is in direct opposition to their expectations – leading to a breaking of the psychological contract. Also, most cadets find working and living conditions at sea as unbearable hence their eventual withdrawal from training programmes prematurely (Gekara 2010). In some countries, the plight of cadets with regards to securing onboard training starts with difficulty in finding shipowners or crewing agents willing to accept them. For example, Zhao and Amante (2005) found that first time cadets in the Philippines could spend up to 13 months in search of their maiden job with a ship.

Also, Zhao and Amante (2005) reported that cadets and redundant seafarers in the Philippines and China respectively, are made to undergo inhumane treatment as well as exploitation at the hands of crewing agencies mostly at Rizal Park in Manila in order to secure jobs onboard a ship. Findings from Turkey also reveal that a lot of aspiring seafarers get exploited by extremely influential crewing companies (called *simsars*) in the process of searching for jobs onboard ships (Parlak & Yildirim 2011). Thus, the two-fold trend is that people (cadets and other seafarers) find it difficult to secure jobs onboard ships and also face many challenges onboard after securing the job. These circumstances may significantly contribute to the decision of seafarers leaving their jobs at sea to pursue landside opportunities.

3.5.3 Industry regulations versus seafarer welfare

Regulations are part of the seafaring culture (Couper 2012). In recent times, the shipping industry has been witnessing an unprecedented flurry of regulations and conventions; something Shantanu (2010) noted is propelled by the reactive rather than proactive nature of the industry. Though regulations have a positive aspect (Graham 2009; Suppiah 2009b), their increased presence within the shipping industry has denied seafarers of certain rights (see for example, Suppiah 2009a) they were originally entitled to in the early days of shipping. It is of critical interest

to note how some of these regulations negatively impact on the welfare of seafarers (Mukherjee & Mustafar 2005) and consequently their retention onboard ships. For instance, regulations related to maritime security were found to exacerbate isolation among seafarers (Graham 2009). Particularly, post 9/11 security regulations make it difficult for seafarers to take shore leave, especially in US ports (Kahveci 2007). The same view is held in Suppiah (2009a) where it is discovered that though the right to shore leave is necessary for medical reasons, practices under the International Ship and Port Facility Security (ISPS) Code restricts seafarers to depending on only the ship's first-aid kit. Hence the death of seafarers onboard for lack of medical care is also present in the literature (Couper 2012). Thus, many of the foregoing discussed regulations may eventually serve as a hindrance to seafaring careers as they negatively impact on crew welfare (Mack 2007). An increase in movement to landside jobs among seafarers could be indicative of falling welfare standards onboard which may need further investigation.

Another issue with increased regulations is it has swelled the volume of work on board (Suppiah 2009a) for ship officers due to the many paperwork that is needed for compliance under international maritime conventions such as the ISPS, SOLAS, STCW and MARPOL. This was found to greatly demotivate ship officers and lead to their eventual exit; as increased workload breeds fatigue and fear of being penalised even should the rules be inadvertently flouted (Bhattacharya 2009; Haka et al. 2011; Knudsen 2009). In particular, shipping regulations related to maritime pollution and security are largely responsible for the increased paperwork onboard ships (Anderson 2003; Kahveci 1999). Thus, too much paperwork may be inimical to the retention of young seafarers to whom ship officers sometimes delegate these clerical tasks (Cremers 2010). Considering that many young seafarers may have been exposed to information technology, they may be compelled to move to landside careers in the shipping industry when overwhelmed by too much paperwork onboard the ships. Thus administrative duties onboard ships have increased with the emergence of new regulations and it has not abated despite the

introduction of computers onboard. For instance some researchers (such as, Higginbottom 2005; Squire 2004) found that mariners are spending an average of three to four hours per day emailing documents.

Shipping regulations have led to increased workload and diminished welfare for seafarers. There is a need to improve the welfare of seafarers working onboard ships at sea to reduce their movement to landside jobs. By understanding how regulations impact workload and employee welfare onboard ships, shipping industry employers may better manage the retention of ship officers and other categories of seafarers.

3.5.4 Shipboard technology and reduced crew size

Technology has been instrumental in the development of society, with specific evidence also found within the shipping industry (Winchester 2005). For economic reasons (see for example, Lorange & Fjeldstad 2012; Marlow & Mitroussi 2012; McLaughlin 2012; Psaraftis 1996; Psaraftis, Lyridis & Kontovas 2012; Silos et al. 2012), many shipowners are reducing the size of crew onboard their ships and shipboard technology is playing a greater role in that regard (Bloor, Thomas & Lane 2000; Grey 2003). Oldenburg and Jensen (2012) show how crew size have reduced from 30 to 24 onboard container vessels, with some owners only prevented by maintenance tasks and not regulations, from reducing their crew to 14.

Couper (2000a) argues that using technology to reduce the size of a ship's crew leads to low morale among seafarers. A more credible explanation for this argument is that increased shipboard automation (especially in the engine room and on the bridge) has led to a rather monotonous work schedule for seafarers (Cahoon & Haugstetter 2008). Such a working routine breeds boredom which leads to loss of job satisfaction for the seafarer (Branch 2007). This undermines efforts aimed at improving their retention and may translate into a decision to quit working onboard to pursue landside opportunities. Essentially, increased technology onboard ships is found in the literature (see for example, Agterberg & Passchier 1998; Branch 2007; Cahoon & Haugstetter 2008; Couper 2000a) to be a factor that

demotivates seafarers, deskills them and eventually leads to their exit. It is however important to measure the extent to which increased technology may influence the decision of ship officers to move from jobs onboard to the landside sector of the shipping industry.

Robinson and Barron (2007) affirmed that technology creates a loss of job satisfaction and lowers organisational commitment among employees which eventually culminates in exiting from the organisation; as both factors are significant antecedents of staff turnover (Hom & Kinicki 2001; Turker & Er 2007). The reasons why shipboard technology triggers the exiting of ship officers is further clarified by the findings of Haka et al. (2011) who concluded that seafarers are motivated to stay at sea when there is a high degree of responsibility and challenge associated with the job and vice versa. With increased technology onboard modern ships, there appears to be less challenge at sea for seafarers.

Thus, a deeper understanding of how increased shipboard technology may influence ship-to-shore movement decisions among seafarers is needed. More especially, considering that increased shipboard technology worsens isolation among seafarers (Cahoon & Haugstetter 2008) by virtue of a reduced vessel complement (Agterberg & Passchier 1998), the relationships it shares with common psychological problems at sea (loneliness, homesickness and 'burn-out' syndrome) needs further clarification.

3.5.5 Age

Age is a key issue that could potentially determine whether a seafarer continues to work onboard at sea or moves to a landside position. The factor of aging among ship officers from developed countries (Whitlow 1999) has widely been reported in research (see for example, Bridger & Bennett 2011; Bridger, Brasher & Dew 2010; Mitroussi 2008; Silos et al. 2012). As working conditions onboard ships have become more demanding (Lindgren & Nilsson 2012), fitness at all times is now an important issue in the career of seafarers (Carter 2005). Thus, one may argue that older seafarers working in job positions that require higher levels of fitness are

more likely to leave the sea for available opportunities on land. Additionally, Gekera (2009) argues that with regards to the older and younger generation, the age factors operates like a double-edged sword; in that the older generation wants to leave ships while young people have been found to struggle leading to a seemingly entrenched pattern of training attrition. An empirical investigation of the interactions between age and job roles at sea could significantly help in understanding how the age of seafarers may influence their decision to move to landside jobs. Age may however not be an issue for women seafarers as they are mostly employed in the catering or hospitality sector of cruise ships or shipboard positions where fitness is of little importance (Jensen et al. 2006).

3.5.6 Workplace health and safety issues onboard ships

Workplace health and safety issues also constitute another important factor in the working life of seafarers; and there are many concerns in this regard that could influence the movement of seafarers to landside jobs. In Snellman, Jonsson and Wikblad (2012, p.88), the World Health Organisation definition for health is given as “a state of complete physical, mental and social wellbeing and not merely the absence of disease and infirmity”. Going by the tenets of this definition, one may be far from concluding that conditions onboard ships intrinsically meet generally accepted health standards. Concerns regarding the health of seafarers have long been an issue both among practitioners and the academia (Nolan 1979); and the ship has remained one of the most dangerous workplaces (Jaremin et al. 2006; Sampson & Thomas 2003). Consequently, seafaring is regarded as one of the most hazardous occupations in the world (Gander, van den Berg & Signal 2008; Oldenburg & Jensen 2012; Orosa & Oliveira 2012; Roberts & Marlow 2005); with suboptimal labour conditions (Bauer 2008).

Seafaring is an occupation that has always been associated with high risks due to shore and shipboard exposure (Bloor, Thomas & Lane 2000). An example can be cited of the exposure of seafarers to a vessel’s engine room sound and vibrations as well as noise created by direct and indirect shipboard operations (Lundh 2010; Oldenburg & Jensen 2012; Orosa & Alvarez 2010; Orosa & Oliveira 2010). Such

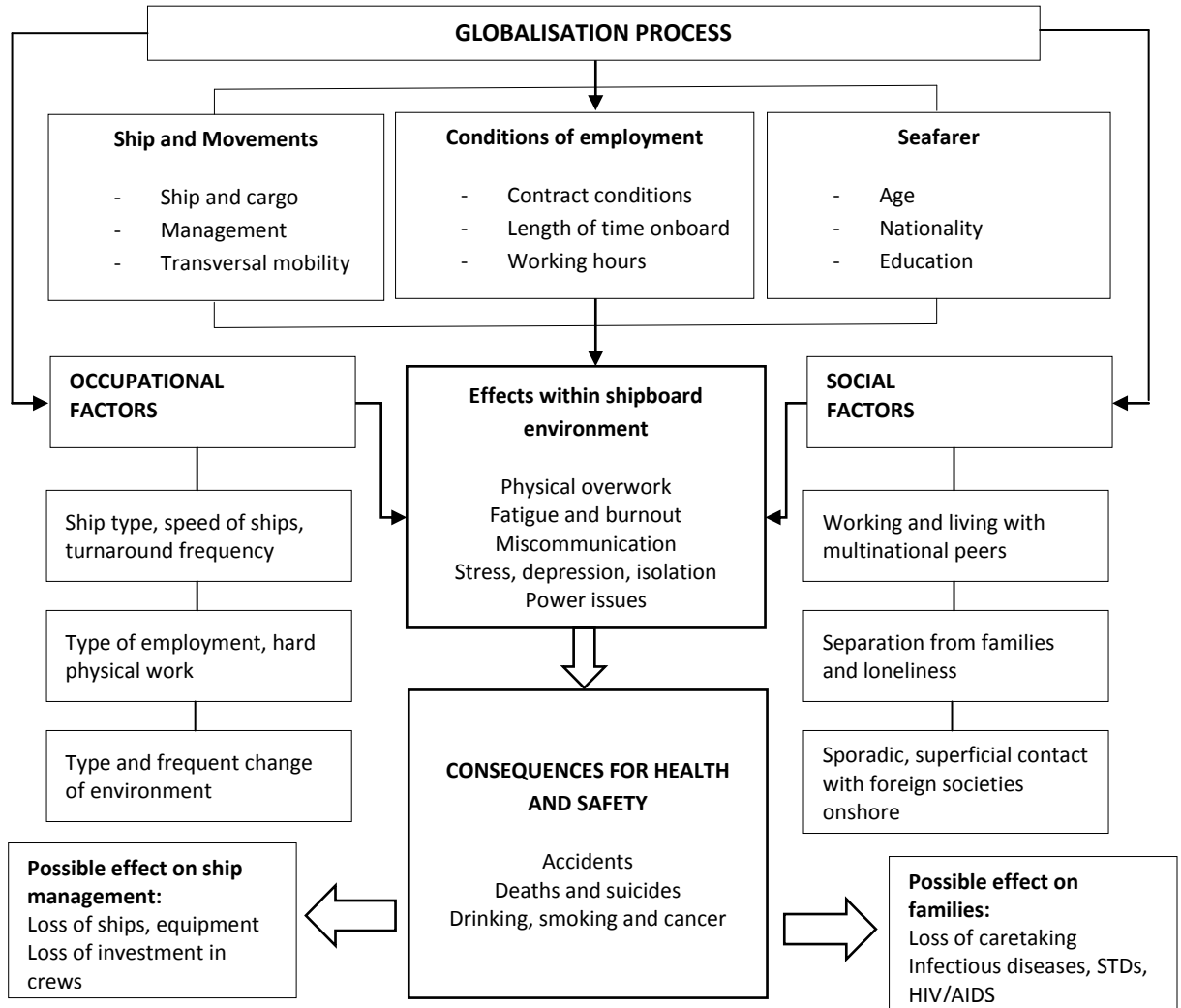
exposures result in disruption of the rest period of seafarers onboard and aggravates fatigue with associated health ramifications (Kaerlev et al. 2008). Dimitrova and Blanpain (2010) also acknowledged that seafaring is intrinsically inherent with higher hazards when compared to other occupations due to the nature of life and work risks onboard vessels; and this has long been an issue of significant concern to seafarers (Couper et al. 1999; ILO 1996).

A thorough understanding of the sources of health hazards among seafarers is needed if shipping industry employers are to introduce measures capable of effectively addressing health-related concerns that departing seafarers may raise as their reasons for moving from the ship to landside. Borovnik (2011) examines the various categories of factors (sources) that negatively impact on the health of seafarers. This is shown in Figure 3.6 which provides an understanding of how the seafarer's health is intricately woven with operational realities in the shipping industry. The diagram shows that the factors impacting on a seafarer's health may be social or directly related to their jobs onboard; and the effects typically include stress, isolation and depression which even go beyond the confines of the vessel. Fatigue and stress negatively impacts on the working life of seafarers and this could significantly influence decisions regarding staying to work onboard or move to landside jobs.

As per Figure 3.6, the relationship between hours of work and degeneration in health is established in research (Artazcoz et al. 2007; Caruso et al. 2006; Dembe et al. 2005; Hilton et al. 2008). Pressure from tight and long hours of working schedules has become a common feature in the operation of modern vessels (Suppiah 2009b) with its attendant erratic sleep pattern among seafarers. This leads to disruption of the circadian rhythm (Spurgeon & Harrington 2001) which may have health implications for seafarers or increase the likelihood of accidents and onboard injuries (Dembe et al. 2005; Folkard, Lombardi & Tucker 2005; Wadsworth et al. 2008). Thus, the shift work system operated onboard ships results in a physiological conflict between sleeping or waking (Miller & Nguyen 2003). It means

that seafarers will be working at night whereas the biological rhythm of their body may be demanding rest at the point in time. The lack of sleep which is mostly caused by disruption from noise equally affects the performance of seafarers (Miller & Firehammer 2007).

Figure: 3.6: Seafarers' health and safety aboard ship: factors and consequences



Source: Borovnik (2011, p.335)

Research has shown a clear relationship between the working environment and health of workers (Asmui, Hussin & Paino 2012; Górný 2012; Henning et al. 2009; Schell, Theorell & Saraste 2012). In the shipping industry for instance, the health of seafarers is in quite a precarious position due to the demanding nature of work onboard ships and the working environment (Critch et al. 2010; Jensen et al. 2006; Louie & Doolen 2007; Oldenburg & Jensen 2012; Saarni, Pentti & Pukkala 2002). As

a result, fatigue is very common among seafarers (Wadsworth et al. 2008). Stress and fatigue may worsen with the departure of a sick seafarer. Also, the nature of work and the conditions under which they are performed onboard ships has been acknowledged as one of the root causes of health problems within the merchant officer population (Jeżewska & Iversen 2012; Smith, Allen & Wadsworth 2007). With the demanding nature of working conditions onboard ships, many seafarers are unable to enjoy the optimal level of satisfaction from their jobs (Gerstenberger 2002) and may leave to landside jobs as a result. The work of Jones (2007) summarised that cost-cutting practices by shipowners with regards to vessel construction and maintenance is the root cause of poor working condition onboard ships. With poor working conditions, there is lack of sleep and increased fatigue. This can significantly influence decisions among seafarers on whether to stay at sea or move to a landside job.

Reviewing the effect of stress on employee turnover, Maertz and Kmitta (2012) discovered that work-related stress is a major immediate causal agent of quit among workers, especially where conditions within the work environment places their health and well-being in jeopardy. All the foregoing conditions discussed as present at sea could be a source of worry to serving seafarers and possibly influence their decision to move to landside jobs.

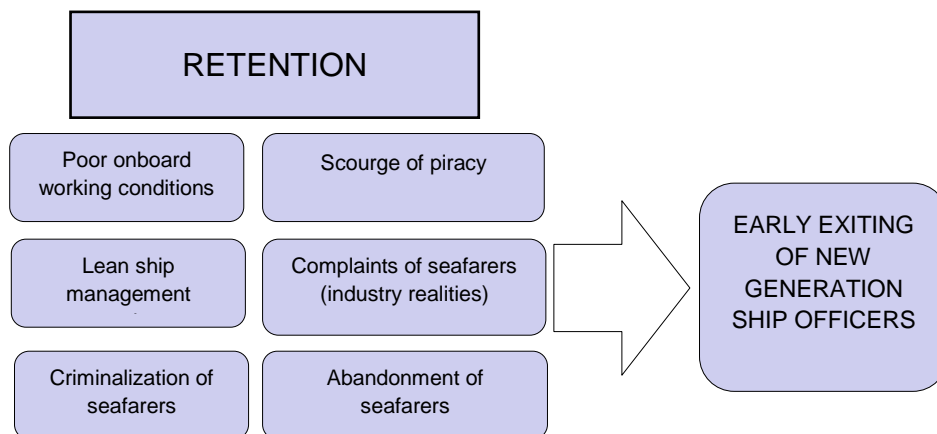
Piracy is among the numerous occupational risk and safety issues confronting the shipping industry in its bid to make a career at sea attractive to young people and it is increasing (Jeżewska & Iversen 2012; Mukundan 2003). Some seafarers are now demanding increased remuneration and security guards onboard when travelling pirate-infested waters (Deloitte 2011; OITS 2010). Thus, piracy at sea is a thorny issue that is of key concern for seafarers, their families, and the international maritime community (Mitropoulos 2011). It is also a major source of health risks among seafarers (Jeżewska & Iversen 2012). Koh (2012) concludes that piracy is not only detrimental to seafarer recruitment efforts by portraying it as a high risk occupation; but also discourage existing seafarers from continuing a career in

seafaring. The efforts undertaken so far to address this challenge have not yielded much result due to the lack of coordination and the divergent views held by major industry stakeholders on the subject matter. There is an urgent need for harmonisation of the pockets of strategies available from the side of shipowners, the IMO and Flag States to ensure that the problem is adequately addressed.

There have been worrying changes in the nature of attacks used by pirates to achieve their goal in recent times. The scenario where pirates are now highly trained can lead to injury or even death of crew as mentioned in Mukundan (2003) and has the ability to scare practising seafarers into seeking employment onshore. Since the crisis off the coast of Somalia began to escalate in 2008, more than 3,000 seafarers have so far been kidnapped and held for ransom, enduring months of captivity in appalling conditions (ISF 2011). Piracy could therefore be one of the potential predictors of high ship-to-shore mobility among seafarers.

The key aspects of seafarer retention discussed so far (shown in Figure 3.7) form an important component of the conceptual framework for this thesis (shown in Chapter four).

Figure 3.7: Key aspects of seafarer retention



Source: Author

3.6 CATEGORIES OF SHIP OFFICER ATTRITION PREDICTOR FACTORS

The literature review made it possible to identify key predictor factors most likely to impact the decision making process leading to attrition among ship officers. The

discussed factors have broadly been categorised as: individual specific, organisational, industry, macro environment and external opportunities.

Individual specific factors included age, self-motivation and personal goals and they include the ambition to become a ship officer, attachment to supervisors and colleagues (other seafarers), desire to be with family on land (separation from family), desire to marry and start a family, other family pressures, feeling of being valued by the employer and desire to have a permanent employment contract. Macro environment factors concerned globalisation, poor human resource practices, available jobs opportunities elsewhere, retrenchment during periods of economic recession and retirement of the baby boomer demographic.

Organisational factors included fair opportunities for advancement for all, family-oriented policies, provision of recreational facilities onboard, internet and communication facilities, good workplace culture, good working conditions onboard, abandonment, good mentorship onboard, vacation, opportunities to progress, shore leave and opportunities for training.

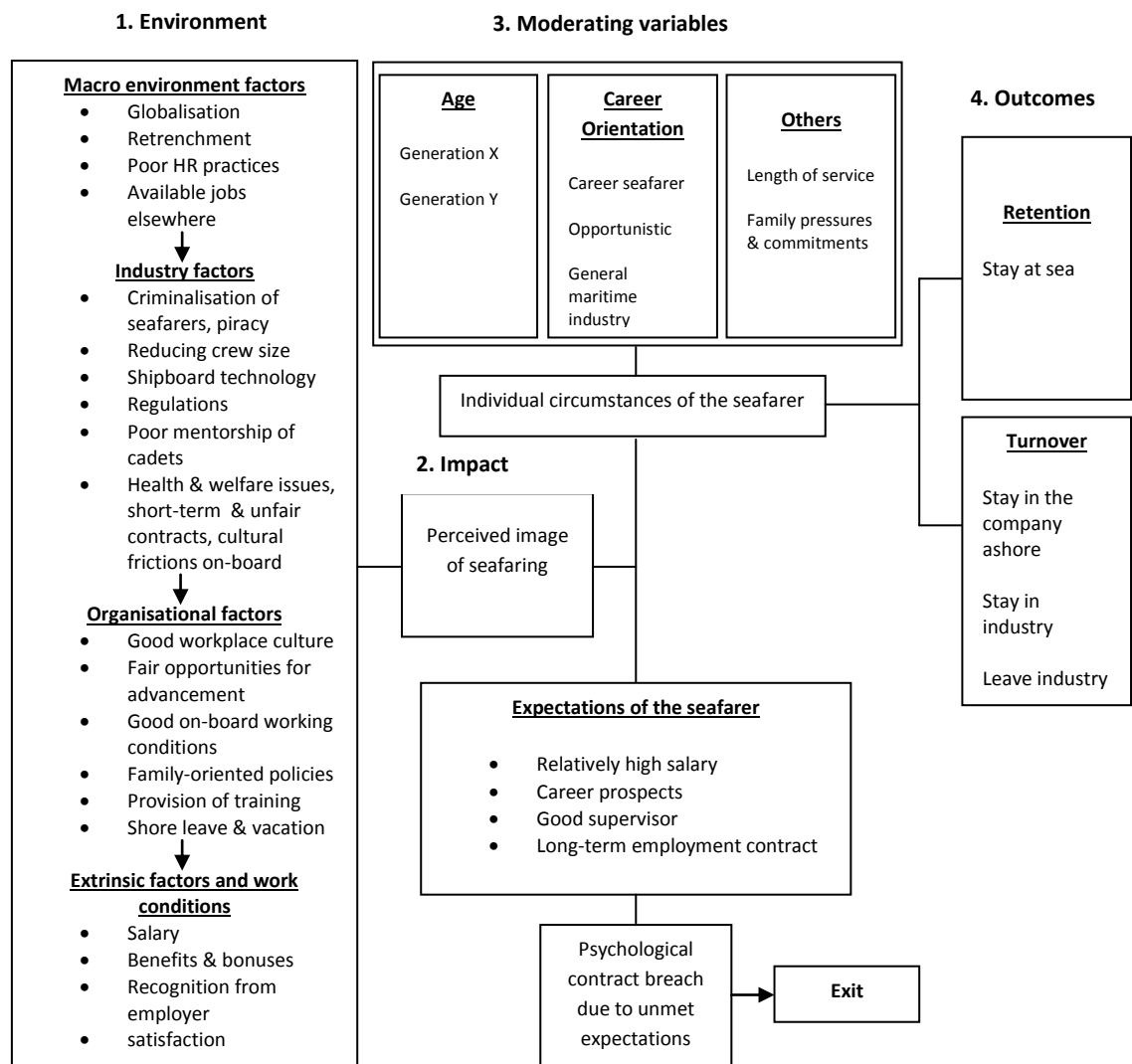
Industry factors concern the criminalisation of seafarers, piracy, reducing crew size, shipboard technology, regulations, and poor mentorship for cadets, health and welfare issues, stress and fatigue, generation difference issues, short-term and unfair contracts, cultural frictions onboard, lack of training, too much paperwork and loneliness.

Extrinsic factors include salary, benefits and bonuses, recognition from employer, late payment and plateauing of salaries. Intrinsic factors include inherent satisfaction, recognition of employee's effort, personal career goals and opportunities for training to become a ship officer.

Figure 3.8 is a dynamic model which shows the various categories of predictor factors, their respective components and how they may influence the turnover decision among seafarers. Generally, the nature of the working environment (physical and economical) in which employees operate influences their behaviours

and attitudes towards the employer (organisation), job and external opportunities (Bitner 1992). The model shows that in the shipping industry, working environment onboard ships is impacted by many factors (such as macro environmental, industry, organisational and working conditions). These factors shape the perception of seafarers about the image of the shipping industry and the career of working onboard ships at sea. Ultimately, these predictive factors trigger a decision to either continue working as a seafarer onboard or leave to pursue landside opportunities.

Figure 3.8: The seafarer attrition and retention model



Source: Author

It is worth noting that the decision to stay onboard and continue working as a seafarer or leave to landside jobs is not solely controlled by the predictive factors

outlined in the model. There are other individual specific factors and circumstances relevant to the seafarer that acts as a form of moderating variable to decide the possible outcome (whether to stay or leave). The moderating variables (such as age, career orientation, length of service, family pressures and commitments) indicate the respective disposition of the individual seafarer and dictate how he/she may interpret the impact of the predictive factors on the working environment. The interpretation may differ depending on the individual circumstance of the seafarer and this in turn predicts the outcome. For instance, there may be a negative interpretation for industry image and this coupled with poor supervision and organisational culture, may influence an individual seafarer to make a decision to leave but other moderating issues [such as career orientation e.g. the desire to become a ship officer (career seafarer)] may prevent them from doing so. On the flipside, an individual seafarer (who is under pressure from family commitments on land) may decide to leave to landside jobs despite a great organisational culture and good working environment. Thus, this model implies that the response of the individual seafarer to the predictive factors is conditional - based on the degree of importance attached to the moderating factors. The dynamic nature of the model hinges on the changing nature of the moderating factors which leads to different outcomes over time.

The model in Figure 3.8 shows that like other service industries, the behaviour of seafarers can be influenced either positively or negatively by both physical and non-physical factors in their working environment. A positive reflection of the working environment on the attitude of seafarers may yield job satisfaction and organisational commitment leading to their retention. Conversely, a negative working environment breeds a perception of unmet expectations among seafarers; leading to a breaking of the psychological contract between them and their employers (Caesar, Cahoon & Fei 2013). This coupled with the individual circumstances of the seafarer is more likely to lead to a turnover.

3.7 SUMMARY

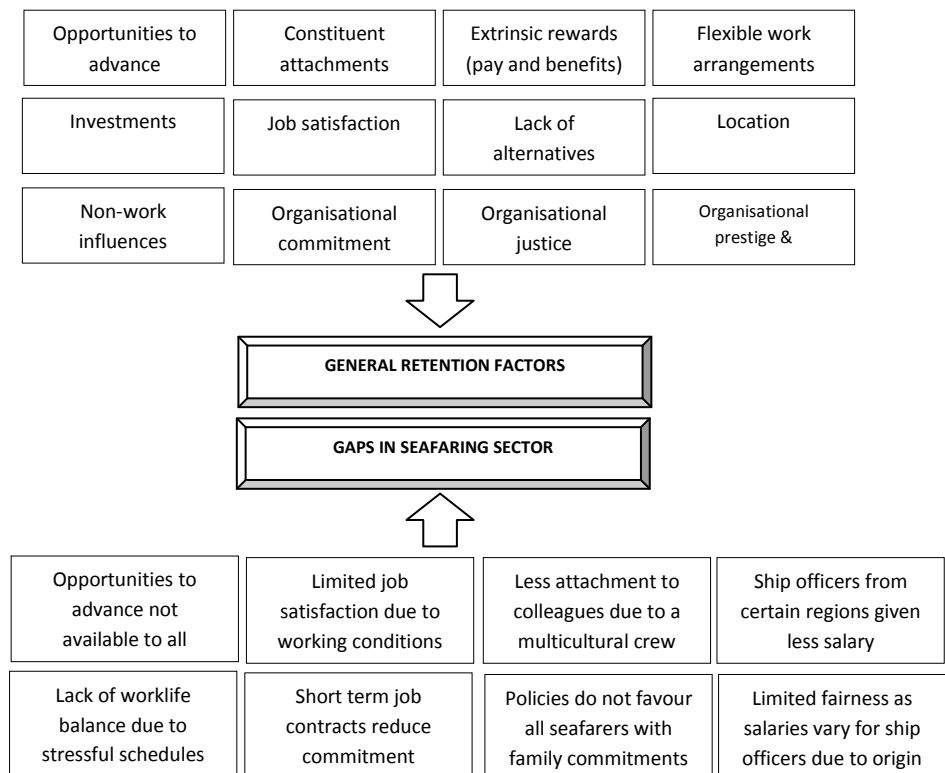
The reviewed literature reveals that the retention of skilled talent is one of the key human resource challenges confronting modern day organisations. This Chapter reviewed the concept of staff retention and attrition with a discussion of the key theories related to these processes within the general human resource literature. Over the years, organisations have employed several measures to improve retention among employees. Primarily, staff motivation theories form the foundation of most strategies used to keep employees within a particular job or organisation. The crux of most staff retention practices is to ensure that employees are satisfied. This will then strengthen employee loyalty, organisational commitment and reduce the likelihood of them seeking alternative job opportunities. Most organisations and human resource practitioners acknowledge that job satisfaction reduces high turnover; hence tools such as wages, job characteristics and career progression are used to maintain the interest of workers in their respective jobs.

While much has been done on why employees may leave or stay in an organisation, there is a paucity of research in that regard for seafarers. Nevertheless, the retention of seafarers is a critical issue. The Chapter discussed that the retention of ship officers is becoming more difficult as they are spending a lesser part of their career life onboard ships. Although many factors could be attributed to the difficulty in retaining ship officers at sea, separation from partner and family emerged as the most common reason. The problem is becoming worse with the high wastage rates among cadets and junior officers. This has led to the proliferation of unsustainable and short-term labour strategies among shipping industry employers.

The discussion that has ensued on the general human resource literature on staff recruitment (Chapter two) and retention and what is practised in the shipping industry suggests a need for better strategies to manage the retention of ship officers. In the general human resource literature 12 key factors are identified as

being central to the retention of staff in organisations (Hausknecht, Rodda & Howard 2009). These factors represent the prerequisite of staff retention in many industries. As presented in Figure 3.9, the retention strategies of shipping industry employers are limited in a number of ways when compared to what pertains to other industries. There is therefore a need for refocusing. This implies the need for empirical testing to attain a clearer understanding of the complex range of retention issues in the shipping industry. The next Chapter presents the design and methodology of the current study.

Figure 3.9: Gaps in retention strategies of shipping industry employers



Source: Author

CHAPTER 4: RESEARCH METHODOLOGY: THEORETICAL FRAMEWORK AND DESIGN

4.1 INTRODUCTION

The aim of this Chapter is to present the design and methodology of the study. It discusses the research process that includes a description of the type of data used, how it was collected and the sampling techniques used. A mixed methods research design is used to address the primary research question of the study: *How can shipping industry employers improve the retention of ship officers?*

The mixed methods research design includes a web-based survey of ship officers which is subsequently followed by a phone interview of senior managers of shipping industry employers to adequately explain the attrition process among ship officers. The phone interviews additionally explain the implications of the findings made after the web-based survey of ship officers. In this Chapter also, the conceptual framework of the thesis is discussed showing the relationship between major concepts and theories. The Chapter concludes with a justification of the methods used in conducting the research as well as the error control process.

4.2 THE THEORETICAL PERSPECTIVE

Three key theories relating to the attraction, motivation and attrition of employees constitute the theoretical foundation for the current study. They are: Rothwell's (2005, 2010) Succession Planning Theory, March and Simon's (1958) Theory of Organisational Equilibrium and Steel and Griffeth and Hom's (2002) Staff Motivation and Retention Theory. Rothwell's Succession Planning Model, which is primarily focused on employer branding and attraction of employees, explains how organisations can become employers of choice by fashioning out a career progression plan for the employee right from the onset of recruitment. March and Simon's (1958) Theory of Organisational Equilibrium was aimed at explaining attrition among employees. Their model suggests that employees will be more likely to stay in an organisation when they are satisfied with their jobs and believe that there are few alternatives available elsewhere. They will however leave when the

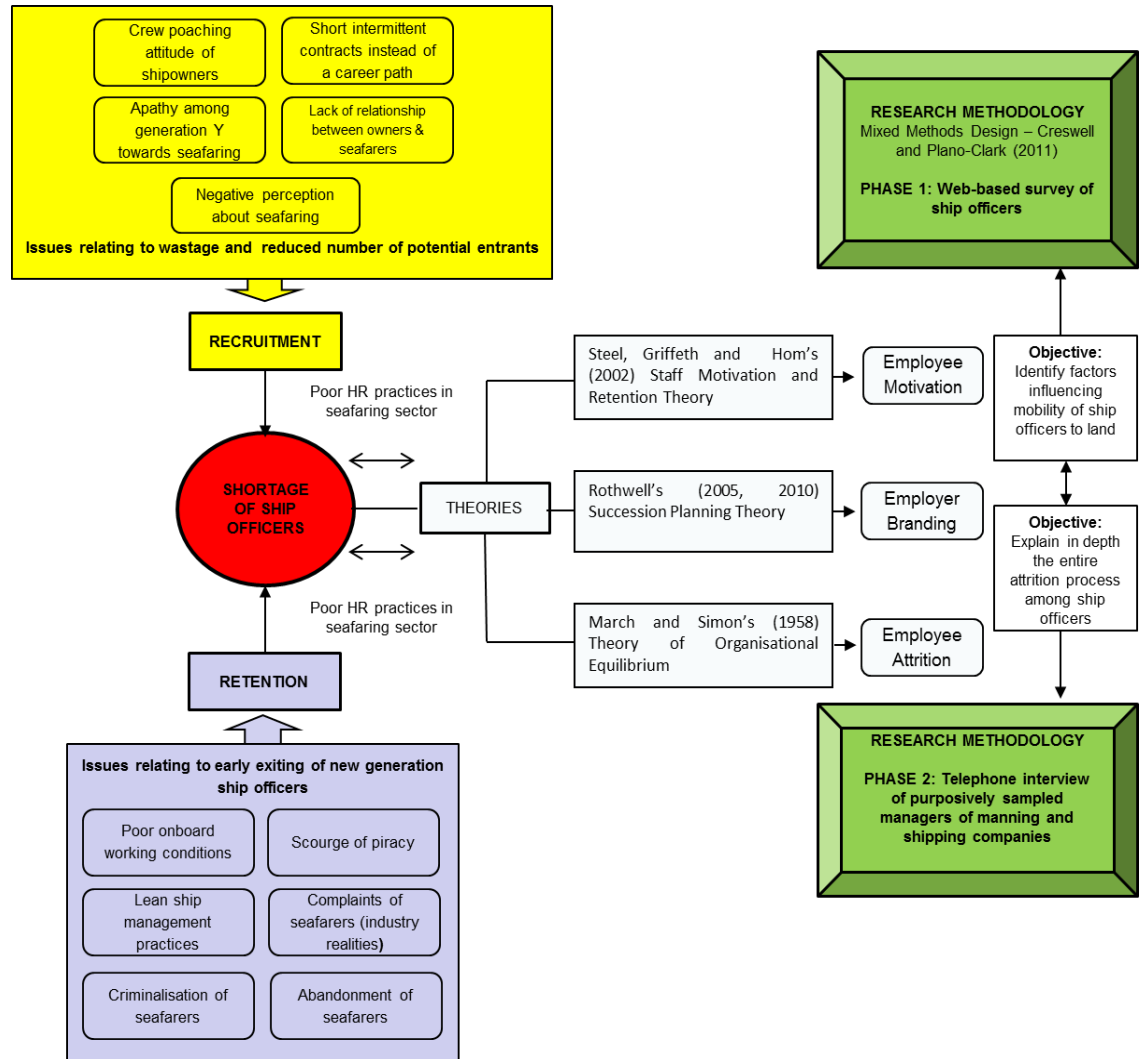
opposite is the case (Mitchell et al. 2001; Mobley 1977). The Steel, Griffeth and Hom's model concerns the motivation of employees in order to retain them within an organisation or on a job. Even though the aforementioned models are not directly related to seafarers, they have quite a number of core factors that have emerged as common to the attrition and retention of ship officers.

To develop a sound theoretical framework for the study, a review of the literature was undertaken to identify the key factors that could possibly influence the mobility of ship officers. Synthesis of the results from the literature review revealed that the factors acting as prospective predictors of attrition among ship officers are numerous and intrinsically linked to the three key theories upon which the conceptual framework of the study is designed. Among the factors identified were those related to poor human resource practice of shipping industry employers (Donn 2003; Donner 2008; Haka et al. 2011; Progoulaki & Roe 2011), lack of work-life balance (Turker & Er 2007), dissatisfaction with job and organisation (Collins et al. 2000; Cross, Barry & Garavan 2008; Hom et al. 1992), and the lack of motivation and morale (Ramlall 2004; Watson & Hewett 2006). A set of variables were designed out of the factors from the literature coupled with the key components of the three theories. Tests were performed on the variables to ascertain their influence on the mobility of ship officers. The theoretical framework for this thesis is illustrated in Figure 4.1.

The theoretical framework shows how challenges connected to the recruitment and retention of seafarers may influence the shortage of ship officers. Poor human resource practices are the root cause of the many challenges confronting the effective recruitment and retention of ship officers. Thus a gap exists between the hiring practices of shipping industry employers and what is commonly regarded as acceptable in the general human resource literature. To address the gap, an application of strategic human resource theories is suggested in the model. The effectiveness of the proposed models could be realised after understanding the perspective of seafarers and their employers on the attrition process among ship

officers. The methodology shown in the theoretical framework is to help identify the reasons for attrition among seafarers.

Figure 4.1: The theoretical framework



Source: Author

4.3 RESEARCH METHODOLOGY: METHODS, PROCEDURE AND JUSTIFICATION

This section discusses the techniques and processes used in collecting data for this thesis. Given the different types of data collection instruments available, justification is given for the techniques used. Also, the rationale behind the population sampling techniques used for the two phase of data collection is explained.

4.3.1 Design and approach

In order to ensure the credibility and reliability of the findings, it is important that the research be conducted in a systematic and scientifically proven manner (Hinds, Scandrett-Hibden & McAulay 1990; Kolbe & Burnett 1991; Shenton 2004). This means the use of methods and procedures that are widely acknowledged and accepted as well as applicable to the research objectives and questions; to achieve the goals set at the beginning of the thesis (Zikmund et al. 2012). The benefits of using an appropriate method for any given research is that it reduces sampling or non-sampling errors (Bryman 2012). Also, it is important the method used matches and is able to answer the key research questions (Onwuegbuzie & Leech 2006). Scholars in the social and behavioural sciences have greatly relied on two traditional methods to undertake their research – quantitative and qualitative. However, a new method which employs a pragmatist paradigm has emerged in the research community over the past 24 years. This new method has been referred to as the *third methodological movement* (Tashakkori & Teddlie 2003); the *third research community* (Teddlie & Tashakkori 2009); and the *third research paradigm* (Johnson & Onwuegbuzie 2004), all reflecting a research method where quantitative and qualitative methods are fused to answer a research question.

Compared to its predecessors, this third research paradigm, generally known as the mixed methods approach, essentially involves the amalgamation of quantitative and qualitative methods from the design stage to the interpretation and presentation of findings. This means a fusion of both approaches is employed for the design of questions, choosing of methods, collection and analysis of data, as well as the making of inferences (Tashakkori & Creswell 2007; Tashakkori & Teddlie 2003; Teddlie & Tashakkori 2009). With regards to the analysis of data, the mixed methods research design uses a combination of numerical and thematic techniques (Teddlie & Tashakkori 2009). This helps to identify and explain relevant variables connected to the phenomenon being understudied.

In recent times, researchers have come to appreciate the benefits of mixed methods research (see for example, Andrew & Halcomb 2006; Teddlie 2009). More

specifically, mixed methods research designs provide the potential for research related to psychology and human behaviour (Ponterotto, Mathew & Raughley 2013). This thesis employs the mixed methods type of research approach as it is ideal for the following situations: when there is a need for the incorporation of both confirmatory and exploratory elements with regards to the study objectives and questions (Teddle & Tashakkori 2009); to synthesise differences in opinion and perception of the sampled participants on the phenomenon under investigation (Tashakkori & Creswell 2007; Tashakkori & Teddlie 2003; Teddlie & Tashakkori 2009); and achieve effective investigation of an unknown aspect of the phenomenon (Moran-Ellis et al. 2006; Teddlie & Tashakkori 2009). The overriding condition for using a mixed method approach is where neither quantitative nor qualitative methods are capable of singularly answering the research question. This study needs a mixed method research as previous research on seafarers (see for example, Gekara 2009; Gould 2010; Leong 2012) had often relied on qualitative methods (to explain the views of employers) and largely ignored the viewpoint of seafarers. Despite the growing popularity in its use (Creswell & Clark 2007), there are many issues that make the implementation of mixed methods research designs quite difficult (Ivankova 2004; Ivankova, Creswell & Stick 2006; Ivankova & Stick 2007). Notably, mixed methods research is a time-consuming option and the decision process by which priority may be given to either the quantitative or qualitative component is quite complex (Creswell & Plano-Clark 2011; Creswell 2013). This suggests that adequate planning and management of time is of utmost importance to avoid a backlog of tasks where the research is time-sensitive. All these issues were taken into consideration for this thesis through the development and review of a Gantt chart with frequent updating of the relevant timelines and associated tasks.

There are five major designs of mixed methods research: parallel, sequential, conversion, multilevel and fully integrated (Creswell 2003; Creswell & Clark 2007). These design types can however be modified resulting in further sub-types. The sequential method has a sub-type known as the explanatory sequential mixed

methods design (Creswell & Plano-Clark 2011). The explanatory sequential mixed methods design is preferred for the current study (Teddlie & Tashakkori 2009). This design primarily involves the collection of quantitative data after which questions are developed from analysed results of the first data for the second data collection. Hence there are two distinct phases of data collection for the explanatory sequential mixed methods design (Creswell & Plano-Clark 2011) – the quantitative and qualitative phases (Tashakkori & Creswell 2007; Tashakkori & Teddlie 2003; Teddlie & Tashakkori 2009). For this design, the quantitative data collection phase precedes the qualitative.

4.3.2 Applying the explanatory sequential mixed methods design

There are a number of reasons why the explanatory sequential mixed methods design was preferred for this thesis. First, the gaps in research suggest a need to gather empirical data to clearly identify the possible reasons why ship officers leave the sea for landside jobs early in their career. The quantitative component of the current study helped to gather the needed empirical data in a form that can be analysed to determine the extent to which each of the factors may impact on turnover decisions among seafarers. The phone interview of senior managers is the qualitative component of the current study. This is necessary to gather further details to adequately explain the turnover process among ship officers. Hence the rationale for using both quantitative and qualitative data is to sufficiently capture the intricate aspects of the mobility of ship officers to landside jobs as the qualitative phase will help to elaborate results obtained in the first phase (Ivankova, Creswell & Stick 2006; Ivankova & Stick 2007). Also the views of both seafarers and their employers on the issue of retention can be adequately captured with the help of the quantitative and qualitative components of the study.

According to Haka et al. (2011), it is important to not only identify the reasons why ship officers leave the sea but of more necessity is the need to explain the entire process to arrive at a reasonably thorough understanding of how these factors influence turnover. Understanding these factors may help shipping industry employers to better manage the turnover process. To achieve this, there is need for

the collection of a qualitative strand of data for this thesis which was undertaken by interviewing senior managers. Henwood and Pidgeon (2006) suggest that when there is a need to generate new knowledge on a particular phenomenon, qualitative data should be used. Furthermore, the differences in perception of seafarers and their employers as acknowledged in research (see for example, Thai & Latta 2010) with regards to the reasons for their exit may be confirmed with the interview. This is also likely to yield fresh perspectives on the phenomenon.

4.3.3 Population and unit of analysis

The key objective of the current study is to understand how shipping industry employers will be able to improve retention among ship officers. To ensure that sampling errors are minimised, a number of criteria were used to determine the population of seafarers for the first phase of data collection for the current study. This included:

- Respondents who are either active or inactive ship officers in Australia and working in the bluewater sector. This excludes ship officers working within the oil and gas sector of Australia and the port industry. The reason for this exclusion is that as per the study objectives the high level of attrition that was found in the literature as existing among ship officers is related to those within the blue water sector (Gekara 2009; Shiptalk 2008). Also, due to the rapid changes happening within the shipping industry, many seafarers based in the port sector might have stopped working on ships at sea many years ago. As a result, their responses may not necessarily represent the latest information on life at sea.
- They must have worked as an officer onboard a seagoing ship other than oil and gas supply ship or platform. The reason being that the working schedules and duty duration for seafarers working on deep seagoing vessels differ from those working onboard oil and gas vessels.
- They must have been trained in a recognised training institute and certified by Australian Maritime Safety Authority (AMSA) standards or its equivalent.

Based on the details of a recent census done for seafarers in Australia by the Department of Infrastructure and Transport (DIT) and ORIMA Research, a total of **2439** ship officers met the set criteria (DIT 2012). The census report indicates there are 2439 ship officers in the blue water sector of Australia and meeting the three criteria set for determining the population for the first phase of data collection for the current study. Given that most countries do not have an established mechanism by which statistics are collected on seafarers (Leggate 2004), there may be concerns with the 2439 ship officers as per the census report for the blue water sector of Australia. Also, it is possible that the given population might change over time as previous studies (see for example, Caesar, Cahoon & Fei 2013; Cahoon, Caesar & Fei 2014) suggest that ship officers are moving from the ships to pursue landside jobs. However, it appears this limitation is not confined to Australia as it is a general challenge in the global shipping industry (McLaughlin 2012). Thus figures given for seafarer populations in the industry are quite limited and can best be regarded as estimates. Despite the limitations that exist with regards to figures on seafarers, the population of 2439 given for ship officers in the blue water sector of Australia represents the most comprehensive estimate available.

Determining the unit of analysis is also another important aspect of conducting a research. According to Creswell and Plano-Clark (2011), the unit of analysis represents the object which the researcher collects data about. This may come in various forms: people, groups, geographical units, social interactions, artefacts and settings. Hence the unit of analysis may be a single unit or collective and its determination is influenced by factors such as nature of data to be gathered, objectives of the study, scope and nature of the topic, study design, among others (Morse 2000; Zikmund et al. 2012).

The unit of analysis for this thesis is ship officers. Even though there are different categories of ship officers – deck officers and chief engineers, there is rarely a differentiation between them within the literature as they are generally clustered into one homogenous group (see for example, BIMCO/ISF 2010; Cahoon,

Haugstetter & Bhaskar 2010; De Silva, Stanton & Stanton 2011; Gekara 2009). Since the core aspect of this thesis (main research question) concerns the retention of ship officers, it is important that ship officers are considered the most appropriate unit of analysis for both the collection and analysis of data. Also, given that previous studies (such as Gekara 2009; Kokoszko 2006; Kokoszko & Cahoon 2007) did not specifically sample the views of ship officers and recommended further research to explore their opinions, choosing them as the unit of analysis for this thesis can also be regarded as beneficial; as this will help to identify the reasons for the increased turnover among them.

Since the data for this study is to be collected from Australia, consideration was given to the need for selection of target companies having links with the unit of analysis (ship officers) in this geographical area. As a result, shipping organisations geographically situated in Australia were targeted to serve as gatekeepers (Tushman & Katz 1980) for the collection of data from the target population. The focus was on organisations that are directly engaged in the employment of seafarers in Australia or who frequently interact with them.

4.3.4 Sampling methods and procedure

There are two major types of sampling techniques used in social science research – probability and non-probability (Babbie 2012; Bryman 2012). Generally, the type of sampling strategy used for a study should be guided by its ability to produce more accurate findings without having to collect data from the entire population (Denscombe 2010). This is very important considering the high costs and time involved in the collection and processing of research data. The probability sampling method is primarily used to achieve representativeness of sample in relation to the population to set a stage for the possible generalisation of findings (Hair et al. 2007). With this type of sampling method, the researcher has less control over what elements will be included or excluded with regards to the sample as the process is random (Celsi et al. 2011; Hair et al. 2007). The alternative to probability sampling is non-probability sampling. There are several reasons for which the non-probability sampling technique may be used. The most common reasons identified by Bryman

(2012) include the time and costs in relation to available resources, extreme difficulty in obtaining probability samples and the unique opportunity to study a particular sample out of a population.

The probability sampling method was used for the quantitative data collection phase of this thesis which involved a web-based survey of ship officers. When using probability sampling techniques, it is advocated that issues concerning the size of the sample and impact of the size as well as statistical power tests must be meticulously considered. The importance attached to attaining the right sample size is partly due to the impact that it has on the accuracy of findings (Bryman 2012).

In determining the right sample size to use for the web-based survey of ship officers during the current study, the total population size, confidence levels as well as confidence intervals were taken into consideration, all of which are factors that are widely suggested within the literature as being important (see for example, Bryman & Bell 2007; Creswell 2013; Saunders et al. 2011). In 2012 there were altogether **2439** ship officers in the blue water sector of Australia as indicated in a maritime industry census conducted by Department of Infrastructure and Transport (DIT) and ORIMA Research (DIT 2012). Using the margin of error, confidence level, population size and confidence interval, the sample size for the current study was calculated using widely accepted mathematical tools developed by Raosoft (Raosoft 2004). With the following details (margin of error = 5%, confidence level = 95%, target population size = 2439 and response distribution = 50%) a sample size of **332** was realised after the calculation.

Saunders et al. (2011) argue that further refining needs to be done to the initial sample size (the figure obtained after the initial calculation) in a case where the target population is less than 10,000. Since the target population for the current study is **2439**, a further adjustment was performed. The formula that is generally recommended for further correction of the initial sample size is below (Zikmund 2003; Zikmund et al. 2012):

$$n' = n \sqrt{(N - n)/(N - 1)}$$

In the above formula, n' is the adjusted sample size, n is the initial sample size and N is the target population size. Thus:

$$n' = 332 \sqrt{(2439 - 332)/(2439 - 1)}$$

Therefore: $332 * 0.92 = 305$

The refined sample size of **305** is consistent with the corresponding sample size and respective target population table that was designed and recommended by Saunders et al. (2011) at a 95% confidence level.

It was necessary to identify appropriate gatekeepers through whom the identified sample size of 305 could be reached. The databases of Google (<https://www.google.com.au>) and Company360 (<http://www.company360.com.au/>) were searched with the following phrases: “shipowners in Australia”, “shipping and seafarer organisations in Australia” and “employers of seafarers in Australia”. Also, the databases of Shipping Australia (<http://shippingaustralia.com.au/>) and the Australian Shipowners Association (ASA) (<http://www.asa.com.au/about/asa-members>) were searched to locate relevant gatekeepers. In total, 56 organisations (either directly employing seafarers or interacting with them frequently – for example, seafarer unions) were identified. Using the database of the ASA helped to locate relevant shipping industry employers in Australia.

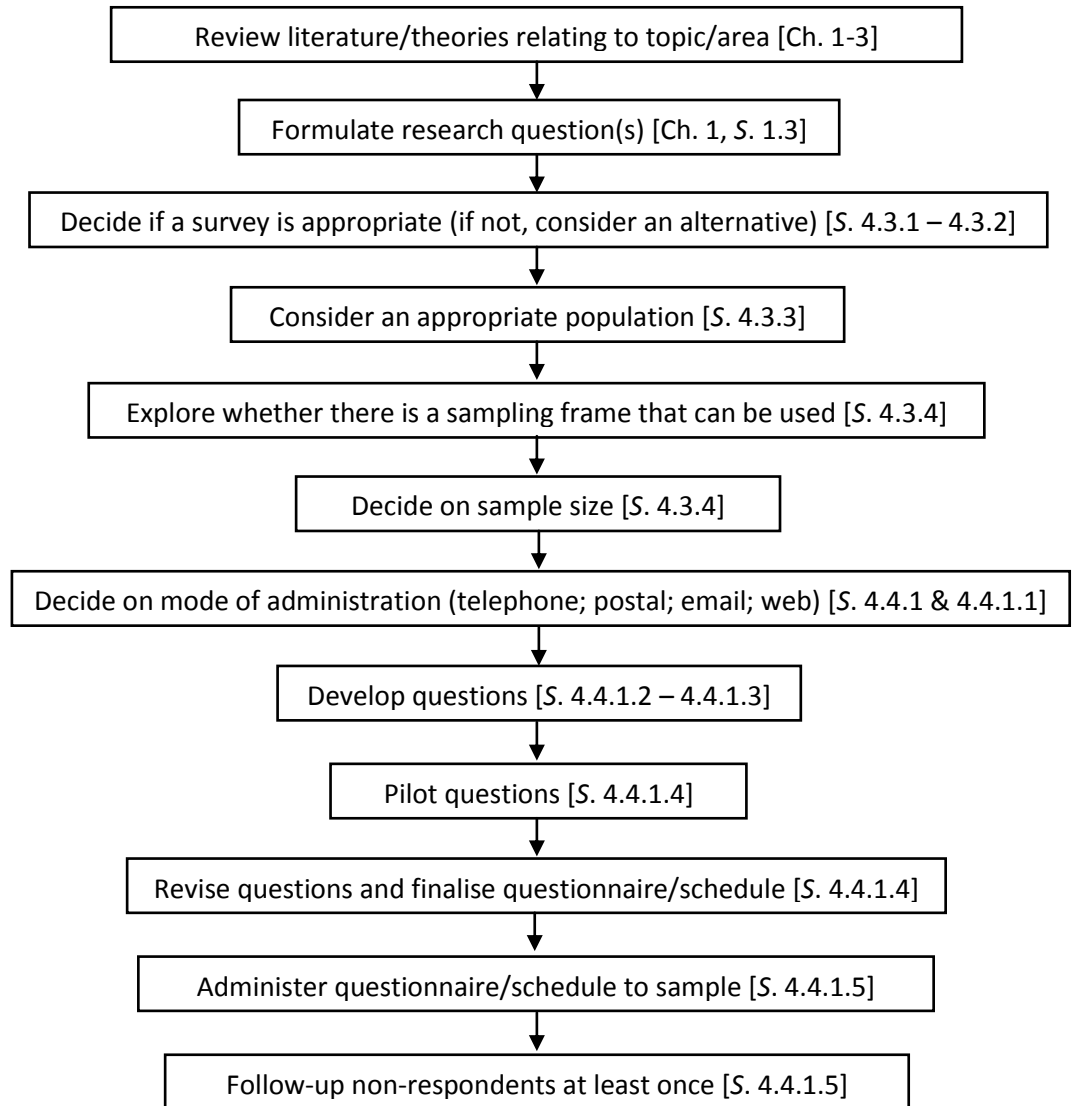
4.4 DATA AND METHODS OF COLLECTION

Data collection methods are the techniques used to gather data in order to answer the research question. Research data can be obtained through questionnaires, interviews, focus groups, tests, secondary sources and observation (Johnson & Turner 2003, p.297). This thesis uses both secondary and primary data. Secondary data was gathered from a literature review (discussed in earlier Chapters) on the recruitment and retention of ship officers as well as the possible factors

contributing to their shortage. Most of the secondary data were collected from journals and periodic reports on the global maritime manpower requirements. The secondary data collected thus provided a foundation for the design of the conceptual framework of the study and the data collection instruments (web-based survey instrument and interview questions). It also helped to understand what data collection techniques are available to be used for the current study and which one was appropriate under the given circumstances.

The primary data was collected through the administering of a web-based survey of ship officers and phone interview of senior managers of shipping industry employers in Australia. Thus, the collection of primary data for this thesis is divided into two parts, the quantitative (web-based survey) and qualitative (phone interview). The rationale for using web-based survey and phone interview to collect the primary data for this thesis is discussed in sections 4.4.1.1 and 4.4.2.1 respectively. Figure 4.2 shows the sequence adopted for the design and administration of the web-based survey instrument with the corresponding sections.

Figure 4.2: Sequence for the design and administration of web-based survey instrument



Source: Adapted from Bryman (2012, p.185)

4.4.1 The quantitative phase: Web-based survey

Previous studies focusing on seafarers and their surroundings have often relied on semi-structured interviews and survey instruments to gather primary data (see for example, Bloor & Sampson 2009; Gekara 2008, 2009). Table 4.1 shows a summary of previous research on seafarers that used either interviews or surveys for the collection of primary data.

Table 4.1: Primary data collection methods used in research on seafarers

| METHOD | DESIGN | STUDY OBJECTIVE | AUTHOR (S) | PARTICIPANTS |
|---------------------|--|---|----------------------------------|--|
| QUANTITATIVE | Mail survey | Investigates how job satisfaction and organizational commitment influence turnover of seafarers | Turker and Er (2007) | 77 seafarers in Turkey |
| QUANTITATIVE | Face-to-Face survey through hospitals | Assesses self-rated health status and the main characteristics of seafarers' working conditions | Jensen et al (2006) | 6461 seafarers from 11 countries in South-East Asia and Europe |
| QUALITATIVE | F2F in-depth interviews | Examines factors leading to shortage of ship officers | Eler et al (2009) | Manning companies and seafarers in the Philippines |
| QUALITATIVE | F2F in-depth interviews | Examines hiring policies of shipping companies in the recruitment of women seafarers | Magramo and Eler (2012) | Shipping and manning companies plus one female seafarer in Manila |
| QUALITATIVE | Interview and Delphi group study | Highlights strengths and weaknesses of existing seafarer assessment methods | Sampson, Gekara and Bloor (2011) | 3 European Union (EU) and 3 non-EU maritime labour supplying countries 17 employers and recruiters of maritime labour in the UK, Philippines and Singapore |
| QUALITATIVE | Semi-structured interviews (F2F and telephone) Documentary content analysis | Explores impact of globalisation on the replenishment of shipping skills | Gekara (2008, 2009, 2010) | MET college staff (2) and administrators (2), ex-cadets (15) and training agency managers (4), government departments (2), shipping company personnel managers (25), & trade union officials (2) in the UK |
| QUALITATIVE | F2F semi- | Examines why | Lindgren and | 10 Filipino |

| | | | | |
|---------------------------------|--|---|--------------------------|--|
| | structured interview | Filipino seafarers choose seafaring profession | Nilsson (2012) | seafarers in Manila |
| QUALITATIVE | F2F interviews and observations – Case study (field-notes, audio-taped, transcribed and coded using Nvivo. | Examines the challenges inherent in the outsourcing of seafaring labour supply | Bloor and Sampson (2009) | 18 METs, 9 focus groups with seafarers (welfare orgns), staffs of 2 national regulatory bodies in the UK |
| QUALITATIVE | Interviews (face-to-face) Tape-recorded and transcribed verbatim | Examines the impact of seafaring work patterns on both seafarers and their partners | Thomas and Bailey (2009) | 14 seafarers plus 14 partners plus 1 partner in the UK |
| MIXED METHODS (PARADIGM) | Interviews and surveys (descriptive statistics derived and linked to interview indexing | Provides an account of cadet experiences during training to become ship officers | Gould (2010) | Cadet trainees in the UK |

Source: Author

The table shows that most of the studies examined were undertaken in the United Kingdom, European Union and the Philippines. The quantitative studies used mail survey whereas face-to-face phone interviews were the most commonly used data collection methods for the qualitative studies on seafarers. Essentially, previous researchers have missed out on the opportunity that online survey technologies offer towards reaching seafarers who are mostly at sea (mail surveys are limited in terms of coverage). Additionally, phone interviews are relatively cheaper when compared to face-to-face interviews.

4.4.1.1 Aim of the survey

Ship officers are the focus of the quantitative phase of this thesis and a web-based survey instrument (which appears to be a more recent approach in this regard) may

be deemed as the most convenient and appropriate means of reaching them. This is due to the peculiar attributes of seafarers and their working life (Lamvik 2002, 2012). The ships on which seafarers work are usually operating remotely at sea where it may be quite difficult to reach them using traditional mail survey instruments. This makes web-based surveys a better option. Also, the internet has emerged as a very valuable tool for the conducting of surveys (Dillman & Groves 2011; Dillman 2000). In order to improve the overall response rate as well as meet further requirements related to research ethics, an introductory consent letter was added to the web-based survey instrument. Principally, the financial and time constraints for the current study gave further impetus to the reliance on a web-based survey for the collection of data from ship officers. Hence the decision to use web-based survey to collect primary data from ship officers for this thesis is based on the many advantages that this technique has over mail and other forms of survey (fax and telephone). Notably, web-based surveys offer the following merits: low cost due to the elimination of paper and postage costs associated with traditional mail surveys, relatively fast and saves time, can accommodate and easily reach a larger sample over a wider geographical area (Boyer, Adams & Lucero 2010), simultaneous tabulation and display of survey responses upon completion and follow-up of participants is much easier (Dillman, Smyth & Christian 2009; Israel 2011). Also, web-based surveys aid the quick and easy importation of survey responses into notable data analysis software such as Statistical Package for Social Sciences (SPSS) and NVivo (Archer 2003; Heiervang & Goodman 2011).

When compared to mail and fax, web-based surveys offer more benefits with regards to costs and speed (Cobanoglu, Warde & Moreo 2001). Even though web-based surveys are relatively new compared to preceding data collection techniques, its use is increasingly becoming widespread due to the aforementioned advantages (Wright 2005b). Despite the numerous benefits afforded by web-based surveys, there appears to be some drawbacks to its use (Dillman 2007; Duda & Nobile 2010). In Dillman (2011) computer illiteracy and system incompatibility are outlined as key obstacles to the use of web-based surveys as a data collection technique.

Considering that modern day ship officers tend to use computers in their daily work schedules, computer illiteracy might not be much of a challenge during the collection of data for this thesis using the web-based survey instrument. Aside from computer illiteracy, old browsers which slow down the loading of survey pages may influence both completion and dropout rates (Dillman 2007). To address the problem of high incompleteness rates which may arise from respondents leaving the survey halfway, a feature was activated in the online survey software which allows a respondent to exit the survey and resume it later. Also, web-based surveys are not suitable for all populations since not everyone may have an internet connection (Dillman & Groves 2011; Dillman 2000). It is often the case that people who frequently use the internet (Israel 2011) and those with high speed internet connections (Archer 2003) are considered the most ideal participants for web-based surveys. This applies to ship officers who are the subject of this thesis as most modern ships are now connected to high speed internet technologies (Papachristou, Stantchev & Theotokas 2015; Stantchev, Theotokas & Papachristou 2014).

4.4.1.2 Design of the web-based survey instrument

Most of the literature on web-based surveys appear to be confined to the early years of the last decade (see for example, Archer 2003; Cobanoglu, Warde & Moreo 2001; Couper 2000b; Dillman 2000; Gunn 2002; Solomon 2001). Research on web-based surveys in recent years (see for example, Fleming & Bowden 2009; Heiervang & Goodman 2011) highlights the design pitfalls that must be avoided when designing web-based survey instruments. For example, care was taken to reduce the number of open-ended questions and the length of the web-based survey instrument. This is because too many open-ended questions and lengthy questionnaires (Archer 2008; Deutschens et al. 2004) can potentially influence response and dropout rates. It equally impacts negatively on the content of the responses (Fan & Yan 2010; Manfreda & Vehovar 2002). Given that poorly designed web-based survey instruments negatively impact response rates (Dillman, Smyth & Christian 2009), care was taken to avoid the common design mistakes. Particularly,

the web-based instrument was divided into sections with statements provided at the beginning of each section to direct the respondents. Also, multiple questions per screen was provided through the instrument design to reduce the time spent in completing the survey and the number of unanswered questions (Gunn 2002). All closed ended questions were set to compulsory to reduce the number of skipped questions.

The issues and steps relevant to the design of general survey instruments may not necessarily be the same for web-based surveys. It appears that there are certain considerations which remain unique to web-based surveys and were duly applied during the design of the web-based survey for ship officers under this thesis (Dillman & Groves 2011; Gunn 2002). Given the study objectives and characteristics of the target population (Saunders et al. 2011), the design of the survey instrument was done in conjunction with key shipping industry players in order to ensure that the content is not only academic but also has a focus on practical issues within the industry. Also, utmost care was taken during the design of the survey instrument to ensure that the questionnaire is sound enough to achieve its intended purpose. This was done through the adoption of acceptable questionnaire design principles (Cavana, Delahaye & Sekaran 2001; Whitley Jr & Kite 2012). To ensure that respondents could easily understand the questions, a Flesch-Kincaid readability test (Kouamé 2010) was done for the survey questions. A rating mean of 4.43 showed that the web-based survey instrument could easily be read and understood by the respondents. To improve readability also, people without a background in seafaring and shipping were recruited to be part of the pre-test sample for the web-based instrument. Furthermore, the wording of the question was done to avoid the following question types: ambiguous, leading, double-barrelled and jargon-laden (Lietz 2010). This is important as such type of questions may negatively impact on response rates and the quality of data. Thus efforts were made to avoid the use of words that the respondents may not be familiar with. Also, through the pre-testing of the survey instrument the many pitfalls (such as poor wording and lengthy

questions) given in the literature (see for example, Dillman 2007, 2011; Dillman et al. 2009) as common with the designing of web-based surveys were addressed.

The web-based survey instrument designed for the current study is divided into five sections (with special titles, colour highlights and instructions to direct respondents):

- Part A: Entry – motivational factors
- Part B: Expectation of seafarers
- Part C: Employee training
- Part D: Retention of seafarers – mobility and turnover
- Part E: Demographic questions

Part A of the survey purely focuses on the recruitment of seafarers as questions were asked to identify the factors that motivated respondents to choose seafaring as a career. The relevance of the questions in this section of the survey is that a better understanding of what motivates respondents to become seafarers can help in the introduction of corresponding strategies to meet their expectations. Part B of the survey concerns the expectations that respondents had prior to becoming seafarers and whether such expectations have been met. Identifying the expectations that have not been met can lead to further understanding of issues that shipping industry employers need to address. Part C of the instrument is aimed at understanding the training practices among shipping industry employers. Part D is one of the key sections of the web-based survey instrument. It relates to the nature of working onboard ships, experiences of participants in that regard and factors contributing to the decision to move from ships to landside careers. When the factors leading to attrition among seafarers is understood, the human resource strategies of shipping industry employers can be refocused to improve retention. The fifth section of the survey instrument (Part E) sought to collect demographic data from participants on their age, gender, years of experience in seafaring, among other issues. The demographic information will help to measure and understand the

differences in behavioural trends for the respondents based on their demographic status.

4.4.1.3 Question types

To collect different types of data and detail, varying types of questions were used. Although open-ended questions can lead to deeper insights (Hair et al. 2007), most of the questions in the web-based survey are closed-ended as too many open-ended questions could lead to a low response rate and increased dropout rates among respondents (Dillman & Groves 2011; Gunn 2002). Where open-ended questions were used, they focused on issues that may appeal to respondents. The open-ended questions in the web-based survey instrument were provided at the end of each section to enable the respondents provide greater detail of information on closed-ended questions that needed further exploration.

A majority of the close-ended questions which were intended to measure levels of agreement or importance on pertinent issues among participants used a five point Likert type scale from “Strongly agree” to “Strongly disagree” and “Very important” to “Not at all important” respectively. Likert scale questions were mostly used in the web-based survey as they help to quickly gather data from respondents (Carifio & Perla 2007). Also, the use of a five point Likert scale with a “Neither agree nor disagree” midpoint was necessary to generate more accurate responses (Allen & Seaman 2007; Göb, McCollin & Ramalhoto 2007). Apart from the Likert scale questions which already lend themselves to an in-built coding system, all closed-ended questions in the web-based survey had relevant codes added to the response options to aid statistical analysis using an appropriate software package (Stock 1994). To reduce bias, options such as “Don’t know” and “Not applicable” were also added to the scale questions (Rea & Parker 2012). Such options guide respondents to provide more accurate and honest answers to the survey questions. They were however not given weight values since they are not intended to be incorporated into the final data for analysis. Such responses were recoded into the neutral midpoint of the 5-point Likert response scale. Lietz (2010) explains that when different types of questions are used in a survey instrument, respondents can be stimulated

to complete the survey and this may reduce the number of uncompleted responses. Thus apart from closed and open-ended questions, other types used in the instrument were forced choice and dichotomous. In the case of forced choice questions nonresponse type choices such as “Don’t know” “Unsure” and “Not applicable” were used in the survey instrument. As Wivagg (2008, p.290) states, “survey designers use the forced choice format to encourage respondents to provide an actual response”.

4.4.1.4 Pre-testing of the instrument

To improve readability as well as reduce errors, pre-testing of the survey instrument was done before sending it out to the research participants. The pre-testing was necessary for any bias and weakness to be identified and rectified before administering of the survey (Zikmund et al. 2012). Hence pre-testing can be regarded as a piloting exercise which complements the design of the questionnaire to ensure that hidden errors in wording and construction are identified and rectified (Collins 2003). Its use and importance in the conduct of web-based surveys has gained ground among researchers in recent times due to the inherent benefits (Moeser, Schmitz & Moeser 2012).

The web-based survey instrument for this thesis was pre-tested using 12 respondents - academics, students and professionals (Cahoon 2004; Moeser, Schmitz & Moeser 2012). This included six lecturers (with relevant experience in seafaring – mostly former shipmasters) in the National Centre for Ports and Shipping (NCPS) at the Australian Maritime College (AMC), a management consultant, a ship crew manager and four PhD research students. The pre-test sample of 12 falls within the recommended number of 12-20 as proposed by previous researchers (see for example, Saunders et al. 2011). It was important to use people who have both an academic and industrial experience to pre-test the survey instrument to ensure that the wording was in a language that could easily be understood by seafarers.

The package sent to the pre-test sample consisted of a hard copy of the web-based survey instrument (Appendix B), a pre-testing letter (Appendix C), sample web-based survey participant reminder letter (Appendix E) and letter to gatekeepers (Appendix J). The main objectives of the pre-test were to ascertain how long it would take to complete the survey, identify ambiguous questions and have them reworded (Celsi et al. 2011; Hair et al. 2007), detect possible omission of questions on concepts that ought to have been covered in the survey as well as gather comments from respondents to further refine the questions (Bryman 2012; Bryman & Bell 2007; Saunders et al. 2011). Comments from the 12 respondents used for the pre-testing helped to fine-tune the final wording of the survey instrument in order to avoid sending questions with vague meaning to the respondents as that will amount to wastage of time and resources on wrong questions (Bowden et al. 2002). The comments received from the pre-test sample typically focused on the length of the web-based survey instrument and with some suggestions for rewording of selected questions. Not all the suggestions were taken into consideration for the final instrument as the researcher employed discretion where issues relating to validity and clarity were considered to be more important (Cahoon 2004; Gurning 2011).

4.4.1.5 Administration and execution of instrument

A systematic approach which involves multiple contacting of the respondents was followed to administer the web-based survey instrument (Dillman 2011; Dillman, Smyth & Christian 2009). This was necessary to reduce errors related to sampling, collection of data and improve response rates (Groves 2004). The web-based survey instrument was administered online using Survey Monkey software (SurveyMonkey 2014). The reasons why Survey Monkey was used for the current study is found in the advantages it offers with regards to data collection and rigour. Apart from the excellent Graphic User Interact (GUI) offered by Survey Monkey compared to other online survey tools such as Qualtrics (Peer et al. 2012), it has in-built features that help address the many ethical issues connected to online surveys. Specifically Survey Monkey helps to address ethical issues related to anonymity, confidentiality

and seeking participant consent. For instance, with Survey Monkey, the researcher is able to use a “No” option to prevent the collection of computer IP addresses of respondents (Knussen & McFadyen 2010). This maintains the anonymity of respondents.

Also, with Survey Monkey, the entire first ‘page’ of the survey or the email containing the link to the survey can be used to seek the consent of the participants. This normally follows the pattern of a paper-based information sheet, and covers the identity of the researcher(s), contact details, the reason for conducting the survey and the uses to be made of the data (Kelley et al. 2003). Another key advantage that influenced the use of Survey Monkey for the data collection for this thesis is that the response of participants can be stored immediately and be transformed for further processing using statistical tools found in Excel and SPSS (Marra & Bogue 2006). Despite the many merits (Gill et al. 2013; Wright 2005a) offered by online survey tools such as Survey Monkey, confidentiality issues arise where many surveys are connected to a shared account (Knussen & McFadyen 2010). This sort of constraint was initially encountered for the current study. It was however addressed through purchasing and using of a non-shared Survey Monkey account.

Since it was not practically expedient to personally contact the ship officers who are the target of the web-based survey, the researcher resorted to administering it through their employers and union associations who acted as gatekeepers (Miller & Bell 2002). These gatekeepers fall within three segments: shipowners, ship managers and maritime associations affiliated to seafarers in Australia. Similarly, a maritime research company that has a link with more than 90% of maritime industry employers in Australia also served as a gatekeeper for the administering of the web-based survey to ship officers. Using gatekeepers to gain access to research participants is not a new practice as its importance has long been established in research (Burgess 1984; Tushman & Katz 1980). Quite recently, the use of employers as formal gatekeepers has gained popularity as they control access to

their employees (Seidman 2012). The use of gatekeepers by researchers to access potential participants is however fraught with many challenges. For instance, it is very important to identify and contact appropriate gatekeepers who are capable of linking the researcher with respondents that are knowledgeable on the subject matter being understudied. As Hasson, Keeney and McKenna (2000) notes, another notable challenge that comes with using gatekeepers in research is the tediousness of negotiating access to potential participants (which in the case of this research are ship officers). The gatekeepers used in contacting ship officers for this thesis is found in Appendix A. They include companies that are either directly or indirectly engaged in the employment of seafarers or union association of seafarers from Australia.

A letter to gatekeepers (Appendix J) containing an internet link to the web-based survey was sent to encourage them to participate in the study. The internet link [with a Uniform Resource Locator (URL)] for the web-based survey instrument with an accompanying letter inviting them to participate was sent by the respective gatekeepers to the seafarers working for them. In the case of gatekeepers who are industry unions and associations, the letter was sent to the seafarers who are their members as they have access to them. Also, an invitation to participate letter meant to seek the consent of the participants (ship officers) was added to the survey instrument. Given that web-based surveys are notorious for low response rates (Monroe & Adams 2012; Shih & Fan 2008), the sending of invitation letters was necessary. This helped to avoid “cold-targeting” of participants which could have a negative effect on the response rate (Archer 2003). Furthermore, seeking the consent of participants constitutes one of the four pillars of the codes that govern ethical research – informed consent, protection of privacy and confidentiality and accuracy in utilisation of data (Gould 2010; Lindgren & Nilsson 2012). All documents related to the web-based survey were submitted to the Human Research Ethics (HRECs) Committee of Tasmania for approval. The ethics approval number is H0014304. The first page of the web-based survey is an introductory letter in which the respondents were advised that the survey was

approved by the Human Research Ethics Committee of Tasmania. Additionally, the relevant contact information of HRECs was given through the gatekeepers so that respondents who had any concerns could lodge a protest in relation to how the web-based survey was being done (McGinn & Bosacki 2004; Rothstein & Shoben 2013). Respondents were given an option to provide contact information at the end of the web-based for a summary of the results. The information received as a result of that request was only used for the purpose of sending the summarised reports.

The probability of receiving fewer responses than envisaged was considered prior to the administration of the web-based survey (Toepoel 2012). Apart from using the provision of summarised reports as an incentive to encourage respondents to take part in the web-based survey (Laurie & Lynn 2009; Singer & Ye 2013), other follow-up strategies were put in place to increase the response rate (Schleyer & Forrest 2000). Two weeks after sending the web-based survey instrument through the aforementioned gatekeepers, a survey participant reminder letter (Appendix E) was sent as a follow-up to thank the respondents and to remind those who had not taken part of the value of their input and the relevance of the study to the shipping industry. A second follow-up letter was sent one week after the first one to repeat the process followed in the previous one. Due care was taken to ensure that the content of the follow-up letters and the accompanying emails were friendly to persuade respondents towards completion of the survey instrument (Dillman et al. 2009; Dillman, Smyth & Christian 2009; Hinrichs 1975). The data analyses of the web-based survey are discussed in Chapter five of this thesis.

4.4.2 The qualitative phase: Phone interview

Apart from partly explaining certain aspects of the results of the statistical analysis that was done after the web-based survey of ship officers, the qualitative phase of this thesis also helped to generate rich primary data to understand the recruitment and employment practices of Australian shipping industry employers.. It involved a semi-structured telephone interview of senior managers of shipping industry employers in Australia to explain the attrition process among ship officers. The selected (sampling discussed in the next section) senior managers were sought

because they are closely involved in decisions surrounding the employment of seafarers and had profound knowledge of the seafaring labour market.

4.4.2.1 Sampling method and procedure

Guest, Bunce and Johnson (2006) suggests that 12 participants is sufficient for interviews in a qualitative research. In qualitative research, sample size is not of as much importance (Bryman 2012; Creswell 2013; Zikmund et al. 2012); what is needed is to give attention to the concept of saturation (Mason 2010). The point of saturation is the level where the qualitative sample experiences diminishing return – in that collection of data from more respondents does not essentially lead to the gathering of new information than what has already been realised (Bowen 2008; Morse 1995).

In choosing the sampling technique to use for the qualitative phase of the current study, the seven distinct steps Onwuegbuzie and Collins (2007) recommended for mixed methods sampling were strictly adhered to. The seven steps are: (a) determine the goal of the study, (b) formulate the research objectives, (c) determine the research purpose, (d) determine the research question(s), (e) select the research design, (f) select the sampling design, and (g) select the sampling scheme. As per the objectives of the qualitative phase of the current study (which is to contact a sample that is capable of explaining the results of the quantitative phase), the purposive sampling method was preferred. Purposive sampling is a type of non-probability sampling technique (Bryman 2012; Bryman & Bell 2007), that is very much used in qualitative research (Bryman 2012; Palys 2008; Tongco 2007).

There are no fixed rules concerning sample size in qualitative research. Hence resorting to purposive sampling technique for this phase of the study enabled the researcher to choose respondents capable of giving detailed and rich responses due to their specialist knowledge (Teddlie & Yu 2007; Zikmund et al. 2012) to adequately explain the ship to shore mobility among ship officers. Thus the decision to use a purposive sampling technique for the qualitative phase of the current study was borne out of the need to have a collection of respondents who could provide

detailed insight into results from the web-based survey without requiring statistical generalisations (Onwuegbuzie & Collins 2007; Teddlie & Yu 2007).

Several websites were instrumental in generating the population from which the sample for the phone interview was realised. The databases of Google (<https://www.google.com/>) and Company360 (<http://www.company360.com.au/>) were searched using the phrases “shipowners in Australia” and “employers of seafarers in Australia”. Also, searches were made from the websites of the Australian Shipowners Association (ASA) (<http://www.asa.com.au/about/asa-members>) and Shipping Australia (<http://shippingaustralia.com.au/>). In total there were 25 full members and 17 associate members of the ASA and 107 organisations from the website of Shipping Australia. One key challenge that emerged with generating the population list was to ensure that it did not omit any relevant company that might have met the criteria and also to ensure that duplication of potential respondents was avoided. Also, the address details of the companies found on the websites of ASA and shipping Australia was used to avoid the duplication of companies.

After screening the lists from the aforementioned databases, 20 organisations met the criteria (that they are directly engaged in the employment of seafarers in Australia) set for the profile of respondents needed for the data collection during the qualitative phase. The members omitted were mostly port-based and professional organisations who did not have any connection to the hiring of seafarers or interaction with them. For instance, the companies found on the Company360 database were mostly logistics firms having no relationship with the recruiting of seafarers. Also, some shipping organisations were omitted as they were only engaged in the employment of foreign seafarers. Thus 20 senior managers of shipping industry employers in Australia were selected using the purposive sampling technique. In addition, their more intimate and current knowledge of the recruitment and retention of ship officers was also a key criteria. Prior industry experience and knowledge of the researcher has been used to choose

the proposed sample size of 20 as they intensely manifest the phenomenon being studied. Also, previous research (see for example, Mason 2010) shows that a point of saturation will be reached after the 20th interview for qualitative research. Ultimately, the use of purposive sampling for the second phase of data collection helped to address the main themes for the research (Carcary 2011).

4.4.2.2 The design: Telephone interviews

Several data collection techniques exist for the collection of qualitative data. The most common techniques are interview, fieldwork, participant observation, and desktop/archival research (Myers 2013; Rubin & Rubin 2011). Of all the data collection techniques available for qualitative surveys, interviews are generally preferred due to the richness of data and the opportunity it affords in providing deeper insight into the phenomenon being understudied (Schultze & Avital 2011). Hence, it naturally follows that interviews are effective for qualitative research because the resultant transcripts constitute a reliable source of rich textual data that could be subjected to qualitative analysis (Cachia & Millward 2011). Usually, interviews may be face-to-face or by telephone using either a structured, unstructured and semi-structured format (Cachia & Millward 2011; DiCicco-Bloom & Crabtree 2006). However, a third type that involves interviewing participants through the internet has emerged and is increasingly gaining acceptance among researchers (Beck 2005; Hamilton & Bowers 2006).

For the current study, a telephone interview (as it engages the participants better than the online option) which employs a semi-structured questionnaire format was preferred. Although the face-to-face option is often used by qualitative researchers for in-depth and semi-structured interviews (Sturges & Hanrahan 2004), Cachia and Millward (2011) suggests that when telephone interviews are combined with a semi-structured format the two are quite complementary and effective from a methodological rather than a convenience perspective. Thus telephone interviews should not be regarded as an alternative to face-to-face but rather one that is equally effective in practical terms (Holt 2010). The circumstances which informed

the decision to use telephone interviews to gather data for the qualitative phase of this thesis are discussed in the next few paragraphs.

Australia is a very large country where the respondents are geographically dispersed. The option of travelling to meet them for face-to-face interviews was impractical in terms of costs (air fares and hotel) and time (Holbrook, Green & Krosnick 2003; Opdenakker 2006). Also, the 20 managers sampled for the interview can be considered as in the elite and ultra-elite group (Stephens 2007). These categories of people are mostly busy which makes it difficult for a researcher to arrange face-to-face interviews with them (Harvey 2011; Stephens 2007). A phone interview is thus a better option as this may be convenient given their busy work schedules (Harvey 2011; Zuckerman 1972).

Telephone interviews are now an established practice among researchers and it has proved useful in collecting data from research participants; especially among the elite and ultra-elite respondents (Novick 2008; Stephens 2007). Until recently the opposite was the case as many researchers were sceptical about the prospects of using telephones to conduct in-depth interviews for the collection of qualitative data (see for example, Holt 2010; Stephens 2007). Apart from the objectives of the qualitative phase of the current study (elaborate on the results from the web-based survey and explain the attrition process among ship officers), the many benefits associated with telephone interviews when used to gather qualitative data also influenced the decision to choose it over the face-to-face option (Sturges & Hanrahan 2004). For instance, telephone interviews are faster and cheaper (Henwood & Pidgeon 2006), provide access to practically unreachable populations (Opdenakker 2006) and affords a wider geographical coverage. There were limited resources and funding for the current study and this already meant that face-to-face interviews were not an option given the high costs that would have been involved in travelling to meet the sampled managers for interviews. Although other forms of data collection methods such as email, postal and participant observation were available to the researcher, they were not well poised to provide the needed

richness in response that telephone interviews could offer. In the case of emails, the flooding of managers with surveys from government and private organisations would have led to a low response rate (Cahoon 2004; Fan & Yan 2010).

However, there are some arguments against telephone interviews. For instance, since the interviewer does not see the interviewee, it becomes difficult to collect data on non-verbal communication which may come in the form of sign language (Cachia & Millward 2011). This is a kind of inherent shortcoming for telephone interviews as the richness of data afforded by the non-verbal aspect of an interviewee's response is forfeited (Fontana & Frey 2005). Yet still, Novick (2008) argues that richness of data can be achieved with telephone interviews as participants are more relaxed compared to face-to-face interviews and very likely to disclose sensitive information to the researcher. This makes telephone interviews a more viable option when research is primarily centred on sensitive issues. Another handicap of telephone interviews is the issue of language and hearing problems among respondents (Carr & Worth 2001). Also, not all the respondents may have access to telephones. These bottlenecks may impair the effectiveness of data collection exercises in which the telephone is the key instrument (Carr & Worth 2001; Sturges & Hanrahan 2004). Despite these issues, the merits of telephone interviews and its suitability for the qualitative phase of this thesis appeared to be the most appropriate option.

4.4.2.3 Design of the phone interview instrument

The telephone interview instrument (Appendix D) is semi-structured and was designed with the aim of providing detailed explanations of results obtained from the web-based survey of ship officers (Schmidt 2004; Whiting 2008). Since the interview process was not aimed at collecting quantitative data (but rather textual data for a thematic analysis), only open-ended questions (35 questions in total) were used for the questionnaire. This was necessary to enable the respondents to fully express themselves (Ballou 2008) with regards to their seafarer recruitment and retention strategies. Thus the comprehensive nature of the interview greatly

influenced the design of the questions; and the use of closed-ended questions would have defeated the purpose of the phone interviews.

The interview instrument is divided into three parts:

- Part A: Recruitment and training of seafarers
- Part B: Attraction strategy
- Part C: Retention of seafarers

The literature review on seafarers (as in Chapter two and three) indicates there are three main aspects to the employment of seafarers – hiring, training and retaining them. Bearing this in mind, the interview instrument was designed to cover these issues. Part A of the instrument, concerns the recruitment and training of seafarers. It is often the case that recruitment is discussed alongside training in the literature (see for example, Gekara 2009; Theotokas & Progoulaki 2007; Wild 2012). As a result, questions that were aimed at understanding how the respondents hired and trained seafarers were placed together in Part A of the interview instrument. The questions in this section focused on strategies being used to recruit seafarers and criteria for their selection. In Part B of the interview instrument, questions relating to the strategies being used to attract seafarers to the organisation and prevailing challenges is covered. Part C of the instrument focuses on capturing the views of the respondents on the shortage of ship officers, strategies being used to alleviate the shortage, the turnover of seafarers on their ships, reasons given for turnover of officers and measures being used to improve retention. Thus Part C essentially focuses on the retention of seafarers.

The key difference between the telephone interview instrument and the web-based survey instrument is that the former mostly had closed-ended questions whereas the latter had only open-ended questions. This is due to the distinct objectives of the two data collection phases. Despite the few open-ended questions used in the web-based survey, its aim was to gather numerical data from seafarers. In the case of the phone interview, the aim is to collect textual data.

4.4.2.4 Pre-testing the instrument

Prior to undertaking the phone interview, the instrument was pre-tested. Pre-testing of the interview instrument was necessary to establish the referential meaning of the individual questions, determine the appropriateness of the interview questions, identify hidden bias in the wording and rectify other anomalies that may affect the quality of the data collected for the research (Bowden et al. 2002; van Teijlingen & Hundley 2002). Fundamentally, the pre-testing of the interview instrument was necessary to reduce errors (Teddlie 2009; Zikmund et al. 2012).

Thus the interview instrument for this thesis was pre-tested using 12 respondents - academics, students and professionals (Cahoon 2004; Moeser, Schmitz & Moeser 2012). This included six lecturers (with relevant experience in seafaring) in the National Centre for Ports and Shipping (NCPS) at the Australian Maritime College (AMC), a former ship master and management consultant, a ship crew manager and four PhD research students. Comments given by the six lecturers and ship master helped in reassessment of the wording of the interview instrument (Burke & Miller 2001) to reflect the right terminology for the sampled 20 managers of shipping companies. The pre-test sample were given a hard copy of the interview instrument (Appendix D), a pre-testing letter (Appendix C), Advance letter (Appendix F), Participant information sheet (Appendix I) and the confirmatory telephone interview instrument (Appendix G). The pre-testing letter was used to explain the aim of the study, research questions and its significance to the pre-test sample.

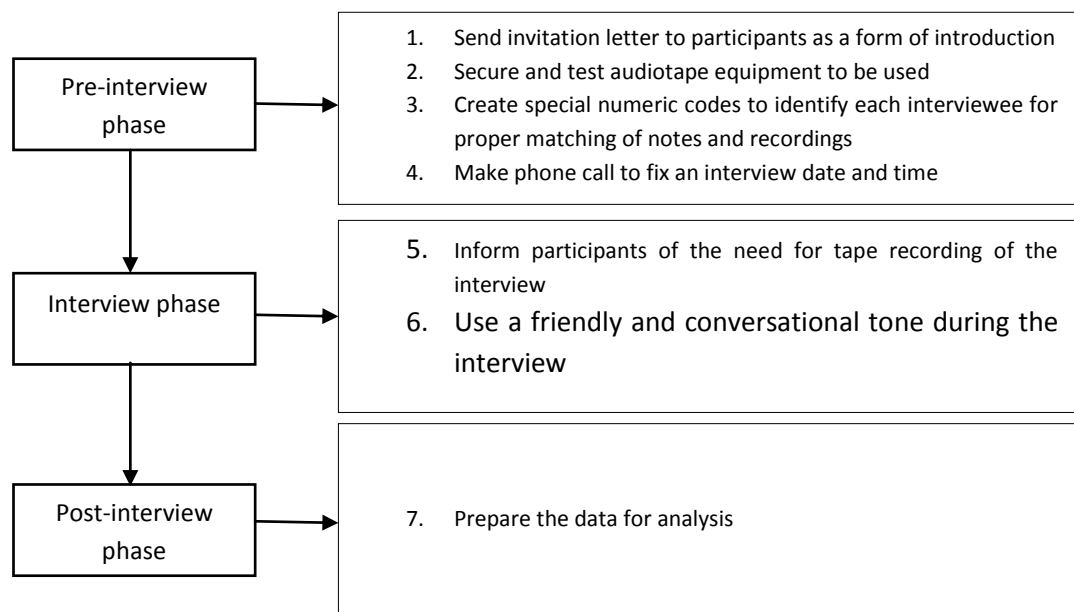
After the first stage of pre-testing, four members of the initial pre-test sample were selected to do another pre-test for some final polishing of the interview survey instrument. This was participatory and it helped to ascertain the average time duration of the interview, test the recording system to be used for the main interview and assess how interviewees might respond to the pronunciation of words (Burke & Miller 2001). This also helped to strategise for accent issues (for the interviewer) which has long been noted as responsible for high refusal rates for telephone interviews (Myers & Newman 2007; Oksenberg, Coleman & Cannell

1986). Another important aspect of the polishing pre-testing was to identify and rectify issues such as background noise which creates distractions. It was also a good opportunity to test the ability of the recording system to endure the length of the interviews.

4.4.2.5 Collection of the data

Several strategies and steps (shown in Figure 4.3) were followed to collect the qualitative data through the semi-structured phone interview of the 20 purposely sampled senior managers of shipping industry employers in Australia. The steps (broadly divided into pre-interview phase, during the interview and post-interview phase) recommended by Burke and Miller (2001) were followed to collect data during the phone interview for this thesis.

Figure 4.3: Sequence for the phone interview



Source: Adapted from Burke and Miller (2001)

The interviews covered findings made from the web-based survey of ship officers and revelations from the literature review. The key issues included why certain factors are more responsible for attrition among ship officers than others, how the attrition process occurs and strategies being used by the interviewees to alleviate officer turnover. An invitation to participate in the interview (entire package sent

can be found in Appendices F, H and I) was sent to participants (Rothstein & Shoben 2013; Seidman 2012).

Confirmatory telephone calls were made to fix interview dates with participants upon receipt of their consent to participate (Berg & Lune 2004; Singer & Frankel 1982). Care was taken to ensure that the interview dates fixed with the participants was at their convenience (Burke & Miller 2001; Harvey 2011). Also participants were encouraged in a friendly tone to keep a record of the appointment in their respective “to do lists” (Burke & Miller 2001). An Excel spreadsheet was used to keep a daily log of all contacts made with respondents and their responses. The confirmatory telephone call letter used to arrange the interview dates with participants is found in Appendix G. The confirmatory telephone call also helped to make a brief and positive introduction of the researcher to the participants and to give further details [confidentiality, how data gathered is to be used and interview length] about the study (Burke & Miller 2001; Cahoon 2004). The confirmatory telephone call also helped to establish a rapport with the respondents prior to the main interview (Goldman & Swayze 2012; Ostrander 1993). Although the invitation letter sent to participants prior to the confirmatory telephone call contained information about the study, previous studies (see for example, Burke & Miller 2001; Dillman et al. 2009) argue that most participants may not have read the letter. This explains the rationale behind the giving of details about the study to participants during the confirmatory telephone call.

The telephone interview instrument (Appendix D) and all related documents (Appendices F, G, H and I) were submitted to the Human Research Ethics (HRECs) Committee of Tasmania for approval (Emam et al. 2013; McGinn & Bosacki 2004). During the time of the interview, participants were informed that with their permission, the interview will be tape-recorded and transcribed verbatim. Given that the issue of recording may cause some respondents to pull out of the interview (Dillman et al. 2009), care was taken to ensure that the purpose and relevance of the recording was explained to them in a persuasive manner. Also, anecdotal notes

were taken concurrently during the phone interviews. Hence all the interviews were tape-recorded with the aid of a portable digital recorder. The approach to the interviews was to get the senior managers explaining about their experiences of managing seafarers – recruiting, training and retaining them. Also the senior managers were informed they could access transcribed interview proceedings and have portions corrected where necessary. Having participants peruse the transcripts after transcribing is one of the key foundations of ethics in qualitative research (Nunkoosing 2005; Seidman 2012) and it also encourages them to consent to recording of the interview proceedings.

During the entire phone interview process, the researcher maintained a courteous, friendly and conversational tone (Berg & Lune 2004; Burke & Miller 2001). The interview questions were read out aloud using a conversational tone with the use of probing phrases such as “interesting” and “could you explain a bit more” where vague answers were given by the respondents. Since most of the questions were open-ended, interviewees were given much opportunity to express themselves fully to yield richness of data. Each interview lasted between 35 and 40 minutes. This is consistent with the average of 37 minutes recorded as the typical length of phone interviews with elites and ultra-elites (Ostrander 1993; Stephens 2007). The post-interview phase largely involved preparation of the interview transcripts for analysis.

4.5 ERROR CONTROL AND DEALING WITH BIAS

4.5.1 Key sources of errors and biases

One of the key issues in social science research is the need to reduce errors. Failure to critically examine and address the sources of error in any given study could raise reliability and validity issues (Hair et al. 2007; Zikmund et al. 2012). It is possible to reduce errors when the sources can be identified throughout the entire research process. Bryman (2012) identified the four major sources of errors in research as: sampling error, sampling-related error, data-collection error and data-processing error. Sampling errors arise when the selected sample is not truly representative of

the population and this may lead to further errors connected with generalisability and validity (Babbie 2012; Lewis-Beck, Bryman & Liao 2004).

4.5.2 Sampling errors: Addressing coverage and non-response bias

With regards to the current study, efforts were made to avoid common sampling frame errors such as choosing a frame that is not up-to-date, including elements that are not supposed to be part of the target population or vice versa (Celsi et al. 2011). For instance, ship officers who might have left their jobs onboard ships to pursue landside maritime careers were excluded from the target population for the web-based survey as the information they may provide cannot be construed as representing an up-to-date view of the working life of seafarers at sea.

Coverage error and non-response bias constitutes some of the major errors associated with the administering of web-based surveys such as the one conducted for ship officers in the current study. Understanding the nature of non-response biases is central to knowing the limitations of the survey instrument in any given research and this needs to be assessed prior to administering the questionnaire (Johnson & Wislar 2012). To effectively address coverage errors, Alvarez and VanBeselaere (2003) suggest that the researcher must be able to identify all members of the target population to ensure that the probability of them being sampled is positive. In the case of the current study a number of criteria were set (discussed earlier on in this Chapter) upon which the sampling frame was determined. This helped to identify the units that should be included or excluded from the population. For instance, the exclusion of ship officers from the port sector as well as oil and gas industry during the web-based survey of the current study was necessary as their inclusion would not have served the primary objectives of the study. Thus knowing which units to include or exclude during the determination of the sampling frame is important towards avoiding sampling and sampling-related errors (Levy & Lemeshow 2013).

The unwillingness of respondents to take part in a survey coupled with a deficiency in computer skills is the main reasons given for non-response bias among

participants who are the target of web-based surveys. Also for the current study, the limited access to ships which constitute the working place of the sampled population during the web-based survey could also be construed as a form of non-response bias. These factors may ultimately determine whether a respondent completes the survey or not (Gunn 2002). Not completing surveys will translate into low response rates thereby introducing non-response bias. Petchenik and Watermolen (2011) reported that on average, online survey responses are 11% lower when compared to mail and phone surveys. The same percentage was recorded in an earlier research (see for example, Manfreda et al. 2008). By using random sampling techniques for the recruitment of participants for the web-based survey during the current study, non-response bias was reduced (Alvarez & VanBeselaere 2003). To ensure that errors typical of low response rates are avoided, Dillman's (2011) approach (discussed earlier in section 4.4.1.5) for the design, pre-testing and administering of web-based surveys was adopted to increase the response rates for the survey of ship officers. This approach basically involves increasing the frequency of contacts made to respondents, which in the case of this thesis was done through the gatekeepers. Making at least two follow-ups after submitting a survey instrument to the target sample helped improve the response rates and reduce non-response bias (Bryman 2012; Bryman & Bell 2007). A week before the web-based survey was made available to participants by the gatekeepers, a notice of invitation to participate in the study and its importance was sent to them. The sending of the notice of invitation to respondents did not only eliminate consent bias which is often times neglected (Emam et al. 2013) but also helped to avoid the low response rate that has become synonymous with web-based surveys (Dillman et al. 2009). Thus the Dillman approach proved effective in reducing response rate errors for the current study by: (1) sending reminders (Appendix E) to non-responding participants two weeks after first distribution of the survey URL; and (2) repeating the reminders after one week.

4.5.3 Dealing with instrumentation bias

Survey instruments can constitute one of the main sources of errors in research, especially when questions are improperly designed (Fowler 2009; Rea & Parker 2012). This type of error is known as instrumentation bias. To avoid instrumentation errors for the current study, efforts were made to ensure that the web-based survey did not contain double-barrelled questions. Also, the survey instrument was designed to eliminate lengthy questions and statements, reduce ambiguity in questions through minimal use of complex grammar (Lietz 2010), avoid poor and negative wording of questions and avoid irrelevant questions that are not related to the key themes of the research (Fowler 2009). Furthermore, the 'do not know' option was added with an arranging of the questions in an order to aid answering from respondents. In terms of arrangement and questionnaire design for instance, the use of reverse scales was necessary to reduce central tendency errors (Gingery 2009; Groves 2004).

Consideration was also given to the layout of the web-based survey instrument and order of the questions to reduce error and bias as well as ensure usefulness of the survey results. A funnelling technique was used to move the participant from general to more specific questions to avoid confrontation (Bryman 2012; Celsi et al. 2011; Creswell & Plano-Clark 2011). Furthermore, error was reduced by subjecting the web-based survey instrument to pre-testing with the aid of 12 people who have both an industry and academic background. This was necessary to ensure that the questions were clear, understandable and unbiased. Thus the pre-testing was a way of establishing apparent validity of the data collection instrument (Celsi et al. 2011).

4.6 SUMMARY

In this Chapter the research design and methodology used to collect data from ship officers and managers of shipping organisations in Australia has been discussed. Also, justification was given for the chosen data collection methods (web-based survey and telephone interviews) by demonstrating their necessity in addressing the key research questions of the current study. A mixed methods approach which involves two phases of data collection was used. For the first phase of data

collection, explanation was provided for using a web-based survey to collect data from seafarers through 56 gatekeepers in Australia. Also, for the second phase of data collection, justification was given for why phone interviews were used to collect qualitative data from senior managers of 20 organisations in the Australian shipping industry.

Thus factors relevant to the design, pre-testing and administering of the data collection instruments were discussed and justifications given for why certain critical decisions had to be made (to reduce errors) with regards to survey instrument layout, length and type of questions. Also, appropriate strategies were used to ensure a high response rate for the web-based survey and interview instruments. This included the use of follow-up letters (for the first phase), advance letter and confirmatory telephone interviews (for the second phase). The analysis of data collected for the first and second phases of the study is respectively presented in Chapters five and six.

CHAPTER 5: ANALYSIS OF DATA: WEB-BASED SURVEY OF SHIP OFFICERS

5.1 INTRODUCTION

The aim of this Chapter is to provide an analysis of the data collected from the web-based survey of ship officers in Australia. Primarily, the analysis is directed at providing answers to the primary and secondary research questions outlined in Chapter one. The Chapter begins with a discussion and justification of the statistical techniques used in analysing the data. After this, demographic information is provided to show the profile of respondents. In the second part of the Chapter, the results presented are aimed at understanding the perceived importance of how certain factors may influence the decision to become a seafarer. This is undertaken by using the demographic variables such as age and gender to explore differences in expectations and perceptions that may exist among the respondents.

In the final part of this Chapter, the perceptions of respondents are explored to identify the factors that may influence seafarers to continue working onboard ships at sea or move to landside jobs. Specifically, both bivariate and multivariate statistical techniques such as Pearson's correlation and Exploratory Factor Analysis are used to determine the influence of the identified factors in triggering attrition or improving retention among ship officers.

5.2 DATA ANALYSIS TECHNIQUES USED

There are several techniques available for the quantitative analysis of research data but the type to use is largely dictated by the study objectives (Creswell & Clark 2007). In social science research either a parametric or non-parametric data analysis technique may be applied when analysing data (Costello & Osborne 2005). The rule of thumb for using either group of techniques is borne out of the sample size and type of data. Where the sample size is more than 100 and data is mostly made up of scale types, the use of parametric data analysis techniques is appropriate (Pallant 2011; Tabachnick & Fidell 2007). For the web-based survey of this thesis, parametric data analysis techniques are used as the sample is 305 with more than two third of

the questions using five-point Likert scale questions (see the web-based questionnaire in Appendix B).

The quantitative data collected from the web-based survey of ship officers was analysed using both univariate and multivariate (Exploratory Factor Analysis – EFA) statistical techniques (Creswell & Plano-Clark 2011; Creswell 2013). The data was screened, edited, coded and entered into the Statistical Package for Social Science (SPSS) (v.22). Primarily, cross tabulation and frequency counts were used to analyse both the demographic data and other scale items within the survey instrument. Apart from the use of descriptive statistics such as the mean and standard deviation to extrapolate patterns within the data, EFA was performed to identify and ascertain the predictive power of factors that possibly influence the attrition of ship officers – their movement from ships to landside jobs. Details of the analysis are presented in the following sections of this Chapter. Results of the findings from the phone interviews with senior managers of shipping industry employers in Australia (which is the second stage of data collection for the current study) are presented in Chapter 6.

5.3 DEMOGRAPHIC INFORMATION OF PARTICIPANTS

The participants in this thesis were firstly compared using the following demographic characteristics: age, gender, family status and employment status. The demographic information for the participants is presented in Table 5.1 and 5.2. Comparison of the demographic data was undertaken to explore the general trend within the responses and to determine possible biases in response patterns. This is very important for error detection and control to establish validity for the subsequent discussions of the results (Celsi et al. 2011; Fowler 2009). A detailed and comprehensive analysis of the demographic information presented in Table 5.1, 5.2 and 5.3 was necessary to understand how the dynamics of the status and characteristics of respondents influence their career decisions (specifically decisions relating to entry into the seafaring profession and leaving to landside jobs).

5.3.1 Response rate

As explained in Chapter four, the web-based survey was sent to 305 ship officers through key gatekeepers within the Australian shipping industry. In total, 198 responses were received equalling a 65 percent response rate. Web-based surveys are notorious for low response rates (as discussed earlier in the methodology Chapter). The response rate for this study however, is considered as acceptable because the mean response rate given for previous studies using web-based surveys is 57 percent (Archer 2008). A number of strategies were implemented to secure a better response rate. These included the use of reminder letters and the calling of gatekeepers from time to time in-between the sending of the invitation emails. Also, additional emails bearing the Australian Maritime College (AMC)/University of Tasmania (UTAS) logo were sent to the gatekeepers and respondents to remind them of the importance of the study to the shipping industry. Also using the AMC/UTAS logo gave credibility to the study. Furthermore, participants were promised a summary of the survey reports. The feedback from participants after receiving the summarised reports suggest that they regard the study as important as it gave them fresh insights into the dynamics of turnover in the shipping industry. All these strategies helped to improve the response rate.

5.3.2 Age

The study participants fall into four age categories: (1) 18-33years (2) 34-46years (3) 47-65years and (4) over 65years. The demography of the respondents is presented in Table 5.1. From a close observation, the age classifications do not appear conventional. This is because of the decision to group respondents by key generation groups (Gen X, Gen Y and Baby Boomer) for specific behavioural analysis as per the seafaring retention model shown in Figure 3.8 in Chapter three. Thus the age grouping is not one that is typical for seafarers but was done to achieve the key objectives of this study. All participants reported their age except for 20 missing cases (who were mostly identified as officers but did not mention their family status). The most typical respondent ages were in the 47-65years (36.5%) and 34-46years (36.0%) range. This is followed by age group 18-33years (21.9%). This result

supports the general consensus within the literature (see for example, McLaughlin 2012) that the age of ship officers in developed/traditional maritime nations is well advanced with many needing replacement in the next two decades.

Table 5.1: Demographic data of respondents

| Category | Sub-category | Frequency | Percent | Valid Percent |
|----------------------|--------------------|------------|--------------|---------------|
| Age | 18-33yrs | 39 | 19.7 | 21.9 |
| | 34-46yrs | 64 | 32.3 | 36.0 |
| | 47-65yrs | 65 | 32.8 | 36.5 |
| | Over 65yrs | 10 | 5.1 | 5.6 |
| | Total | 178 | 89.9 | |
| | Missing value | 20 | 10.1 | |
| Total | | 198 | 100.0 | 100.0 |
| Gender | Male | 176 | 88.9 | 98.9 |
| | Female | 2 | 1.0 | 1.1 |
| | Total | 178 | 89.9 | |
| | Missing value | 20 | 10.1 | |
| Total | | 198 | 100.0 | 100.0 |
| Job category | Cadet | 2 | 1.0 | 1.1 |
| | Integrated rating | 6 | 3.0 | 3.4 |
| | Officer | 122 | 61.6 | 68.5 |
| | Master | 48 | 24.2 | 27.0 |
| | Total | 178 | 89.9 | |
| | Missing value | 20 | 10.1 | |
| Total | | 198 | 100.0 | 100.0 |
| Family status | Married | 120 | 60.6 | 67.4 |
| | Single | 18 | 9.1 | 10.1 |
| | Divorced/separated | 14 | 7.1 | 7.9 |
| | In a relationship | 26 | 13.1 | 14.6 |
| | Total | 178 | 89.9 | |
| | Missing value | 20 | 10.1 | |
| Total | | 198 | 100.0 | 100.0 |
| Department | Deck | 105 | 53.0 | 59.0 |
| | Engine | 48 | 24.2 | 27.0 |
| | Other | 25 | 12.6 | 14.0 |
| | Total | 178 | 89.9 | |
| | Missing value | 20 | 10.1 | |
| Total | | 198 | 100.0 | 100.0 |

Source: Author

5.3.3 Gender

There were again 20 missing cases for the data represented on gender. The respondents were predominantly male. There were 176 (98.9%) males as per the respondent profile shown in Table 5.1 compared to only 2 (1.1%) for females. This trend in the data on gender for the respondents is not unusual as it confirms the finding of previous research (see for example, Thomas 2004). Belcher (2003) also

found that seafaring is a predominantly male career with women forming only 2% of the over 1.25 million seafarers operating the global maritime fleet. Furthermore, the results highlight the need for shipping industry employers to devise strategies for improved attraction of women into the seafaring career.

5.3.4 Family status

All but 20 respondents (the missing cases) reported their family status. A majority of the respondents 120 (67.4%) are married. Also 26 (14.6%) of the respondents reported they were in a relationship. The other two categories of respondents are those in the single category 18, 10.1% and divorced/separated 14, 7.9%. Again, the findings corroborates previous studies (see for example, Amante 2003; Zhao & Amante 2005) which suggests that most (73 percent) seafarers are married. It however does not confirm the high divorce rate (9.3% of the seafarer workforce per annum) reported by Thomas (2003b) among seafarers in the United Kingdom.

5.3.5 Employment status

With regards to employment, the respondents are classified as either officers (deck officers and engineers) or non-officers (cadets and integrated ratings). In total, 170 (95.5%) of the respondents are officers compared to the 8 (4.5%) who are non-officers. A greater part of the respondents reported as working in either the deck [n=105 (59.0%)] or engine [n=48 (27.0%)] departments. Thus 86% of the respondents work in the two traditional departments onboard ships. Approximately 25 (14.0%) of the respondents are working in other departments. This largely represents those working in the stewards and electrical departments of a ship. Since missing data reduce the representativeness of the sample and can therefore distort inferences about the population, all the missing 20 cases were excluded from the analysis due to the small size. Briggs et al. (2002) suggest that exclusion of missing cases from the analysis is more appropriate where the researcher is convinced that it will not have an impact on the final output of the data analysis.

With regards to the company type in which respondents are working, Table 5.2 shows that 101 (58.7%) of the respondents are directly employed by a shipping company as against the 42 (24.4%) and 29 (16.9%) indirectly employed through

manning and ship managing companies respectively. This data trend is highly typical of the nature of employer-employee relationship offered by shipping industry employers in developed nations (Leong 2012); although many such employers may recruit seafarers from cheaper regions (they are often constrained by visa and other government regulations in this regard). The combined 41.3% of indirect employment of seafarers further supports the evidence in previous research (see for example, Goulielmos, Giziakis & Pallari 2011; McLaughlin 2012) which suggests that many shipping companies are increasingly relying on manning and ship management companies to source seafarers.

Table 5.2: Employment status data of respondents

| Category | Sub-category | Frequency | Percent | Valid Percent |
|---------------------------|-----------------------|------------------|----------------|----------------------|
| Company type | Shipping company | 101 | 51.0 | 58.7 |
| | Manning company | 42 | 21.2 | 24.4 |
| | Ship managing company | 29 | 14.6 | 16.9 |
| | Total | 172 | 86.9 | |
| | Missing value | 26 | 13.1 | |
| Total | | 198 | 100.0 | 100.0 |
| Yrs. of experience | 5yrs or less | 13 | 6.6 | 7.3 |
| | 6-10yrs | 35 | 17.7 | 19.7 |
| | 11-20yrs | 55 | 27.8 | 30.9 |
| | Over 20yrs | 75 | 37.9 | 42.1 |
| | Total | 178 | 89.9 | |
| | Missing value | 20 | 10.1 | |
| Total | | 198 | 100.0 | 100.0 |
| AOBS | 15-20yrs | 116 | 58.6 | 65.2 |
| | 21-26yrs | 39 | 19.7 | 21.9 |
| | 27-32yrs | 9 | 4.5 | 5.1 |
| | 33-38yrs | 7 | 3.5 | 3.9 |
| | 39-45yrs | 7 | 3.5 | 3.9 |
| | Total | 178 | 89.9 | |
| | Missing value | 20 | 10.1 | |
| Total | | 198 | 100.0 | 100.0 |
| LOPS | 5yrs or less | 20 | 10.1 | 11.5 |
| | 6-10yrs | 23 | 11.6 | 13.2 |
| | 11-20yrs | 52 | 26.3 | 29.9 |
| | Lifetime | 79 | 39.9 | 45.4 |
| | Total | 174 | 87.9 | |
| | Missing value | 24 | 12.1 | |
| Total | | 198 | 100.0 | 100.0 |

AOBS: Age range of becoming a seafarer; LOPS: Length of period intending to work in shipping as a seafarer

Source: Author

It is also important to note that the desire to access cheap labour cannot be ascribed to the reasons for the increasing use of indirect recruitment methods in Australia. The explanation for this assertion is that the laws in Australia and the dynamics of the shipping industry make it difficult for foreign seafarers to be employed by Australian shipping companies. Although some success has been made by employers within the oil and gas sector where Class 457 visas are used to import seafaring talent (Telford 2014), it has many cost implications. This suggests that the 41.3% of indirect employment among Australian seafarers could be due to the increasing need for employers to focus on the core aspects of their business while tapping into the expertise of those who offer manning and ship management services.

Typically, 75 (42.1%) of the respondents have over 20 years of working experience as seafarers. This is followed by 55 (30.9%) who are in the 11-20 years working experience range. On the basis of working experience, the respondents could be categorised into two groups: those with more than a decade experience and those with less. For the latter group, 35 (19.7%) fall within the 6-10 years working experience range. The lowest number of respondents [13 (7.3%)] reported as having 5 years or less working experience.

5.3.6 Cross-tabulation of demographics

To allow for further exploration of the demographic profile of the respondents, a cross-tabulation (or contingency table analysis) of the respective variables was undertaken. Typically, cross-tabulation is a form of bivariate analysis which helps to identify differences and similarities among the respondent groups (Pallant 2011). This enables comparisons of relationships between the demographic variables which lead to fresh perspectives on the data. Table 5.3 shows the results from a cross-tabulation of some of the demographic variables. The length of period respondents may be willing to work in the shipping industry as seafarers can be divided into two: under ten years and over ten years. This delineation is underpinned by finding from the literature (see for example, Cahoon, Caesar & Fei 2014; Fastream 2012; Ljung 2010) which suggests that seafarers may either work

less than or over a decade onboard ships. Thus there are those who are willing to work beyond a decade as seafarers and there is another group who are unwilling to exceed a decade working as seafarers.

Table 5.3: Cross-tabulation of demographic variables

| | | Length of period intending to work in shipping as a seafarer (years) | | | | |
|----------------------------|---------------------|---|------------------|------------------|------------------|--------------------|
| Category | Sub-category | 5yrs or less | 6-10yrs | 11-20yrs | Lifetime | Total |
| Age | 18-33yrs | 5(12.8%) | 4(10.3%) | 18(46.2%) | 12(30.8) | 39(100.0%) |
| | 34-46yrs | 9(14.3%) | 13(20.6%) | 15(23.8%) | 26(41.3%) | 63(100.0%) |
| | 47-65yrs | 2(3.2%) | 6(9.5%) | 19(30.2%) | 36(57.1%) | 63(100.0%) |
| | Over 65yrs | 4(44.4%) | 0(0.0%) | 0(0.0%) | 5(55.6%) | 9(100.0) |
| Total | | 20(11.5%) | 23(13.2%) | 52(29.9%) | 79(45.4%) | 174(100.0) |
| Years of experience | 5yrs or less | 2(15.4%) | 2(15.4%) | 6(46.2%) | 3(23.1%) | 13(100.0%) |
| | 6-10yrs | 4(11.4%) | 12(34.3%) | 11(31.4%) | 8(22.9%) | 35(100.0%) |
| | 11-20yrs | 6(11.1%) | 5(9.3%) | 26(48.1%) | 17(31.5%) | 54(100.0%) |
| | Over 20yrs | 8(11.1%) | 4(5.6%) | 9(12.5%) | 51(70.8%) | 72(100.0%) |
| Total | | 20(11.5%) | 23(13.2%) | 52(29.9%) | 79(45.4%) | 174(100.0%) |
| Family status | Married | 15(12.9%) | 19(16.4%) | 30(25.9%) | 52(44.8%) | 116(100.0%) |
| | Single | 3(16.7%) | 2(11.1%) | 6(33.3%) | 7(38.9%) | 18(100.0%) |
| | Divorced/separated | 0(0.0%) | 0(0.0%) | 6(42.9%) | 8(57.1%) | 14(100.0%) |
| | In a relationship | 2(7.7%) | 2(7.7%) | 10(38.5%) | 12(46.2%) | 26(100.0%) |
| Total | | 20(11.5%) | 23(13.2%) | 52(29.9%) | 79(45.4%) | 174(100.0%) |

Source: Author

As per the extant literature, Table 5.3 shows a typical trend in the results from the cross-tabulation. It is interesting to note that whereas Gen X seafarers (most within the age group of 34-46years) are willing to spend more than a decade working onboard ships at sea; those in the Gen Y are unwilling to spend more than a decade. This corroborates previous findings (see for example, Caesar, Cahoon & Fei 2013; Ljung 2010; Shiptalk 2008) which suggest that new generation ship officers are spending less than ten years working at sea and then move to landside jobs. Also, less single seafarers are willing to spend more than ten years at sea. It could be that most of these singles are Gen Y seafarers who form part of the category of new generation seafarers unwilling to spend more than a decade at sea. Such general differences provoke a need for shipping industry employers to revisit and refocus existing recruitment and retention strategies for seafarers.

5.4 THE SEAFARING CAREER: MOTIVATING REASONS

Another issue of importance for the web-based survey was the need to identify the key factors that motivate people to become seafarers. Identifying the factors motivating people to become seafarers is important towards a better understanding and subsequent management of their expectations (Cahoon, Caesar & Fei 2014). Also, a better management of the expectations of seafarers will help improve their retention onboard ships at sea.

5.4.1 Age of becoming a seafarer

In question E4 under the demographic sections of the web-based survey instrument (see Appendix B), respondents were asked to indicate the age at which they decided to become seafarers. The result of the answers given to that question is found in row 4 of Table 5.2. A total of 116 (65.2%) respondents indicated that they decided to become seafarers at the age range of 15-20years. This response is highly indicative of the age at which people become seafarers in developed nations such as Australia. It further corroborates previous findings (see for example, Horck 2006, p.92) which found that many people enter METs after 12 years of mainstream education. The remaining one third of respondents reported that they became seafarers at the age ranges of 21-26years (39=21.9%), 27-32years (9=5.1%), 33-38years (7=3.9%) and 39-45years (7=3.9%). Given that the different age groups of seafarers have varying career motives, a better management of career pathways for new recruits can be achieved when the age at which they become seafarers is given adequate attention by shipping industry employers.

5.4.2 Reasons for becoming a seafarer

In question A1 (Appendix B), the respondents were given ten items and asked to indicate the extent to which they were influenced by them at the time of becoming seafarers. Table 5.4 provides an overview of the factors that respondents perceive as influencing their decision to become seafarers. On a five-point Likert scale, the mean scores of items A1.1, A1.2, A1.7, A1.8 and A1.9 exceed the midpoint of three. This denotes an overall acceptance for the five items (Allen & Seaman 2007; Likert 1932). A critical look at these factors (the five accepted) in Table 5.4 highlights the

relatively strong influence that non-economic factors have on the decision making process of people who desire to become seafarers in developed nations. Apart from the second ranked factor (*A1.1 Prospect of earning good salary/wages*), all the remaining four items are intrinsic and directly relate to the ability of the shipping industry to attract people into a seafaring career. The findings of the web-based survey typically corroborate the trend in developed nations where people are more likely to be influenced by non-economic factors to pursue a seafaring career (see for example, Gould 2010).

Table 5.4: Factors influencing the decision to become a seafarer

| | Factor | Number | Mean | Rank |
|-------|--|---------------|-------------|-------------|
| A1.2 | Interest in the lifestyle at sea | 198 | 3.94 | 1 |
| A1.1 | Prospect of earning good salary/wages | 197 | 3.84 | 2 |
| A1.9 | Opportunity to travel | 197 | 3.84 | 3 |
| A1.7 | Availability of career prospects and opportunities for advancement | 197 | 3.59 | 4 |
| A1.8 | Pride and prestige for the position of ship master | 197 | 3.02 | 5 |
| A1.5 | Growing up in a coastal town | 197 | 2.84 | 6 |
| A1.6 | Influence from friends and colleagues | 197 | 2.56 | 7 |
| A1.4 | Influence from parents | 197 | 2.34 | 8 |
| A1.10 | Other | 189 | 2.24 | 9 |
| A1.3 | A family tradition | 197 | 2.20 | 10 |

Source: Author

Previous research (see for example, Cahoon, Caesar & Fei 2014; Thomas, Sampson & Zhao 2003) suggests that structural changes in the industry such as advanced handling technology that reduces time in port means that seafaring is becoming less likely to be a career of adventure. At a first glance, the findings in Table 5.4 appears to contradict the assertion that changes in the seafaring landscape is eroding the ability of non-economic factors to influence the decision of people to become seafarers. The result is however indicative of the unique aspects of the Australian shipping industry which is noted for shorter voyage times, high salaries with a predominantly 1:1 work-to-leave ratio (see Table 5.5). Thus seafarers in Australia may not easily identify with the purported structural changes happening in the shipping industry. In light of this, non-economic factors may continue to feature among the key factors influencing their decision to become seafarers as is common among their counterparts from other developed nations. This does not however

rule out the significance of the high monetary rewards characteristic of the Australian shipping industry. Among Australian seafarers, financial consideration seemingly appears not as the most prominent attraction factor when considering seafaring as a career because, wages are mostly taken as a given in the Australian seafaring case and therefore does not preoccupy respondents as much as other factors motivations.

Table 5.5: The typical work-to-leave ratio of Australians seafarers

| Duration | % | Frequency | Excerpts |
|---------------------------------|--------------|------------------|---|
| 3 months on/3 months off | 15.54 | 23 | <i>"3 months on 3 months paid leave"</i> |
| 2 months on/2 months off | 6.76 | 10 | <i>"we work most of my engagements 2 months on and 2 months off"</i> |
| 6 weeks on/6 weeks off | 35.14 | 52 | <i>"Six week swings, adjustable to suit exceptional personal circumstance"</i> |
| 5 weeks on/5 weeks off | 33.11 | 49 | <i>"equal time on and off normally 5 weeks each"</i> |
| 28 days on/28 days off | 9.45 | 14 | <i>"day for day leave ratio, swing length of two round trips which could be 6-12 weeks away, not consistent swings due to chartering"</i> <i>"Roster is 28 days on, & 28 days off. Crew accumulate 18 days leave per years. Therefore if a work roster is taken, there is a 3 month time period off, but a shortfall leave entitlements to achieve this, most crew take leave every 2 years, as the 28 day off period enough for a good break"</i> |
| Total | 100.0 | 148 | |

Source: Author

The mean scores (shown in Table 5.4) for items A1.3, A1.4, A1.5, A1.6 and A1.10 are below the midpoint of 3. This suggests non-acceptance from respondents that such factors have a significant bearing on any career decision pertaining to their becoming seafarers. Further exploration of the factors influencing the seafaring career decision among respondents is shown in Table 5.6. From the presented percentage score of agreement, four of the ten items recorded more than 60% acceptance among all the respondents. From the highest ranked among the 4 items, the order is as follows: *'interest in the lifestyle at sea'* (77.78%), *'opportunity to travel'* (76.15%), *'prospect of earning good salary/wages'* (73.61%) and *'availability of career prospects and opportunities for advancement'* (65.99%). Two of the

seafarer career decision making items received an agreement percentage scores lower than 60% but higher than 50%. These are '*pride and prestige for the position of ship master*' (58.88%) and '*growing up in a coastal town*' (51.78%). The last four ranked items received percentage scores of agreement lower than 30%. Once again, this result highlights the influence of non-economic factors on the decision of becoming a seafarer among people in developed maritime nations.

Table 5.6: Percentage of agreement for seafarer career decision determinant factors

| Factor | | Percentage total of agreements | | | | | | Rank |
|--------|--|--------------------------------|----------|-------|-------|-------|-------|------|
| | | SD | Disagree | NAD | Agree | SA | AG | |
| A1.2 | Interest in the lifestyle at sea | 3.03 | 5.05 | 14.14 | 47.47 | 30.31 | 77.78 | 1 |
| A1.9 | Opportunity to travel | 3.04 | 6.09 | 14.72 | 50.25 | 25.9 | 76.15 | 2 |
| A1.1 | Prospect of earning good salary/wages | 3.55 | 3.55 | 19.29 | 50.77 | 22.84 | 73.61 | 3 |
| A1.7 | Availability of career prospects and opportunities for advancement | 3.55 | 8.63 | 21.83 | 47.72 | 18.27 | 65.99 | 4 |
| A1.8 | Pride and prestige for the position of ship master | 8.12 | 11.68 | 21.32 | 30.96 | 27.92 | 58.88 | 5 |
| A1.5 | Growing up in a coastal town | 9.14 | 18.27 | 20.81 | 29.95 | 21.83 | 51.78 | 6 |
| A1.10 | Other | 42.33 | 3.17 | 24.34 | 17.46 | 11.11 | 28.57 | 7 |
| A1.6 | Influence from friends and colleagues | 12.18 | 34.01 | 25.38 | 24.37 | 4.06 | 28.43 | 8 |
| A1.3 | A family tradition | 16.24 | 42.64 | 15.74 | 14.72 | 10.66 | 25.38 | 9 |
| A1.4 | Influence from parents | 16.76 | 39.09 | 20.30 | 18.27 | 5.58 | 23.85 | 10 |

SD: Strongly disagree; NAD: Neither agree nor disagree; SA: Strongly agree; AG: Agree and strongly agree

Source: Author

5.4.2.1 Other reasons for becoming a seafarer

Item A1.10 in Table 5.4 concerns the other reasons given by respondents as responsible for influencing their decision to become seafarers. Content analysis (Elo & Kyngäs 2008) was used to identify the various categories of other reasons as shown in Table 5.7. Out of the 198 respondents, 96 gave short comments explaining the other reasons why they decided to become seafarers. Colour coding was used to identify three key general themes within the comments from the 96 respondents that answered the question. Once again, intrinsic factors (which are not directly related to economic issues) emerged as the top reason for the respondents choosing a seafaring career. In this regard, 40 (41.6%) of the 96 respondents

explained that the 1:1 work-to-leave ratio (shown in Table 5.5) enjoyed by Australian seafarers is a lifestyle that attracts them to a seafaring career. For instance many of them are attracted by the knowledge that an Australian captain on a salary of \$200 000 plus per year, gets 20% superannuation and works only six months a year with a long service leave. This type of equal work-to-leave ratio with a very high salary is not seen in other sectors of the Australian economy. Consequently, it is a very attractive part of the adventure and lifestyle potential seafarers are looking to enjoy when they enter the shipping industry. Other reasons given by the respondents were categorised as interest and career ambition [33 (34.38%)] and then opportunities offered by the shipping industry [23 (23.85%)].

Table 5.7: Other reasons for becoming a seafarer

| Category | Percentage | Number | Excerpts |
|--|--------------|-----------|--|
| Adventure and lifestyle | 41.67 | 40 | <p><i>"The freedom that comes with going to sea. I work 6 months, but have 6 months a year free to do as I please. Way more than I would if I worked ashore"</i></p> <p><i>"At age 12 I decided that the sea was where I wanted to be and to that end I went to sea at age 15 and have spent all my working life so far 48 years in the industry"</i></p> <p><i>"...Initially I chose to go to sea for the adventure..."</i></p> |
| Interest and career ambition | 34.48 | 33 | <p><i>"I just wanted to work on larger vessels. It wasn't until I got away to sea that I realised there were so many opportunities for advancement"</i></p> <p><i>"The ambition to qualify as an engineer"</i></p> |
| Attraction and industry opportunities | 23.85 | 23 | <p><i>"...the desire to work in an environment that is challenging and changing frequently. An engine room is like a puzzle"</i></p> |
| Total | 100.0 | 96 | |

Source: Author

5.4.3 Expectations of new entrants

The literature (see for example Caesar & Cahoon 2014; Caesar, Cahoon & Fei 2014) reveals that shipping industry employers are reluctant to have detailed knowledge about the seafarers they employ. This reluctance is borne out of the unfolding deregulation of the labour markets in developed countries and the abundant supply from low-wage developing countries (Gekara 2010; Gould 2010; Leong 2012). In particular, there is little awareness about the expectations and career ambitions of new recruits. This may be resulting in the reduced retention of the seafarer onboard ships as this lack of information of the seafarer's career aspirations may translate into poor management of their expectations. Scale questions were asked under question B1 of the web-based survey (see Appendix B) to identify the expectations of the respondents at their time of becoming seafarers.

The result of their responses is presented in Figure 5.1. All the nine scale items showed average ratings that exceed the midpoint of 3 on a five-point Likert scale. This denotes an overall acceptance for the nine items. The first five highly ranked factors among the nine items are: '*career development*' (4.15), '*experience the available rewards of a seafaring career*' (4.02), '*continuous and relatively stable employment*', (3.91), '*earn a high salary*' (3.80) and '*acquisition of transferable skills onboard to broaden career options*' (3.76). Four of these five factors are connected to the career ambitions of the respondents. This suggests that issues connected to career ambitions exert significant influence when people are becoming seafarers. Consequently, despite the access to cheap labour occasioned by an unfolding deregulation of the global labour market, shipping industry employers need to have a better understanding of the career ambitions of the people that they recruit. This is necessary as it will help both the trainers of seafarers and shipping industry employers to adequately manage their expectations. When the expectations and career ambitions of seafarers are not understood, it may consequently lead to the poor management of their career aspirations which may result in attrition from ships to landside jobs as they become seafarers.

Figure 5.1: The expectations of seafarers

| B1 To what extent do you agree that the following were your key expectations when first becoming a seafarer? | | | | | | | | | |
|--|----------------|-------|----------------------------|----------|-------------------|----------------|------------|----------------|----------------|
| Answer Options | Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly Disagree | Not applicable | Don't know | Rating Average | Response Count |
| B1.1 Earn a high salary | 47 | 78 | 49 | 12 | 4 | 0 | 1 | 3.80 | 191 |
| B1.2 Career growth and progression to the rank of | 50 | 89 | 17 | 7 | 4 | 22 | 1 | 3.55 | 191 |
| B1.3 Good working conditions onboard | 25 | 111 | 39 | 12 | 3 | 1 | 0 | 3.73 | 191 |
| B1.4 Continuous and relatively stable employment | 43 | 112 | 20 | 10 | 3 | 2 | 0 | 3.91 | 191 |
| B1.5 Opportunity to be in contact with family on land | 29 | 51 | 51 | 38 | 12 | 8 | 2 | 3.12 | 191 |
| B1.6 Career development | 51 | 119 | 16 | 3 | 0 | 0 | 2 | 4.15 | 191 |
| B1.7 Acquisition of transferable skills onboard to | 41 | 88 | 41 | 16 | 3 | 1 | 1 | 3.76 | 191 |
| B1.8 Experience the available rewards of a seafaring | 41 | 114 | 30 | 4 | 0 | 0 | 1 | 4.02 | 190 |
| B1.9 All my key expectations have been met | 25 | 80 | 41 | 32 | 10 | 2 | 1 | 3.38 | 191 |
| <i>answered question</i> | | | | | | | | | 191 |
| <i>skipped question</i> | | | | | | | | | 7 |

Source: Author

Thus shipping industry employers should make efforts to better understand who they are recruiting in order to effectively manage their expectations. This requires a thorough understanding of the factors influencing people to opt for a seafaring career. On the recruitment side, the hiring practices of shipping industry employers should be targeted at meeting the career expectations of recruits. It must be realistic and form part of the strategies used during the recruitment stage so that recruits have a realistic preview of working onboard ships.

Another aspect of the management of expectations is that when it is not properly addressed, it may lead to the breaking of the psychological contract among cadets and other categories of seafarers. Previous research (see for example, Progoulaki & Roe 2011) found that unfulfilled expectations among ship officers leads to a breaking of the psychological contract which leads to a loss of job satisfaction, loyalty and organisational commitment. Given this connection between the expectation of ship officers and their attrition, a probable solution for shipowners and other employers within the shipping industry with regards to the early exiting of ship officers is to assess the expectations of ship officers and devise a reasonable strategy to ensure they are met or the expectations be better managed. This must be executed by taking into account existing disparities in the expectations of ship officers based on for example their cultural background, qualifications and experience.

To further explore the perceptions of respondents for eight of the nine factors in question B1, a comparison was done between these factors and the following open-ended questions:

- A4: Briefly describe the type of communication and internet access you have onboard your ships.
- B2: Are there other expectations you believe should have been shown in question B1?
- B3: Please explain what influenced your expectations.
- C2: What has been your overall experience of seafarer training with past and present employers?

From the 198 respondents, 124 provided free text answers to these four open-ended questions. These open-ended questions were subjected to content analysis (Elo & Kyngäs 2008) to ascertain whether the expectations that the respondents had prior to becoming seafarers have been met. Decisions made during the content analysis relate to which data to analyse, how they should be defined, population, context, boundaries for the analysis and the outcome of inferences to be made (Kohlbacher 2006; Krippendorff 1980). The steps described by Mayring (2004) for the inductive process of content analysis were used for the analysis of the textual data from the free text answers. Colour coding was used to identify the key general themes within the comments from the 124 respondents in relation to eight of the nine items shown in Figure 5.1. The results of the analysis are shown in Appendix K.

The opportunity to earn high wages is regarded as one of the key expectations among Australian seafarers. The results showed that 90% of the 124 respondents agreed that their expectation to earn high wages prior to entering the shipping industry has been met. This is a reflection of the relatively high salary scales in the Australian shipping industry (compared to other developed maritime nations). Furthermore, 98% of respondents agreed that they have not encountered any salary or payment-related problems with their present and past organisations. In terms of career progression, the respondents (98%) regard it as a very important

expectation but complained that it often takes longer periods for promotions to be undertaken in their companies. For some respondents the possibility of masters facing jail terms dissuades them from aspiring to become senior officers. This constitutes a formidable obstacle to human resource programmes that may be directed at encouraging continuous professional development (CPD) among seafarers in an organisation. Also, 98% of the respondents expressed dismay at the poor attitude of their employers towards training. Consequently, the cost of training for skill sets that are not directly needed for the job is borne by the seafarer.

Some officers expressed dissatisfaction with the manner certain landside officials (mostly those without a seafaring background) approach operational issues that may arise at sea. The opportunity to be in contact with friends and family is a key expectation among Australian seafarers. In this regard, 98% of the 124 respondents expressed satisfaction with communication facilities onboard the ships of their employers. Also the shorter swing time characterising their engagements means that they do not have to spend long periods at sea before taking leave.

5.5 ATTRITION AND RETENTION OF SHIP OFFICERS

5.5.1 Factors making seafaring less attractive

In question A3 (see Appendix B), respondents were asked to rate 15 items they perceive as making seafaring less attractive. The results presented in Figure 5.2 shows that 11 out of the 15 items have been accepted (with means scores above the midpoint of 3) by respondents as making seafaring less attractive to them. In order of ranking from the highest to lowest five of the 11 accepted scale items are:

- *'Employers not being supportive during times of crisis'* (3.45);
- *'Criminalisation of seafarers in times of maritime accidents'* (3.41);
- *'Limited communication facilities onboard (e.g. no internet connection)'* (3.39);
- *'Limited opportunities for shore leave'* (3.34);
- *'Fewer crew onboard'* (3.29);

- *'Disruption of sleep onboard'* (3.24); and
- *'Difficult working conditions at sea'* (3.14)

Shipping industry employers need to adequately understand the extent to which these factors make seafaring less attractive as they could negatively impact on the recruitment and eventual retention of ship officers. Without a proper understanding of these issues, shipping industry employers may struggle to attract young people in developed maritime nations. Furthermore, all these issues create a negative image for the shipping industry which eventually impacts adversely on the attraction and recruitment of seafarers.

Figure 5.2: Factors making seafaring less attractive

| A3 To what extent do you agree that the following factors make seafaring less attractive to you? | | | | | | | | | |
|--|----------------|-------|----------------------------|----------|-------------------|----------------|------------|----------------|----------------|
| Answer Options | Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly Disagree | Not applicable | Don't know | Rating Average | Response Count |
| A3.1 Difficult working conditions at sea | 24 | 51 | 62 | 47 | 12 | 0 | 0 | 3.14 | 196 |
| A3.2 Limited opportunities for shore leave | 30 | 69 | 46 | 40 | 11 | 0 | 0 | 3.34 | 196 |
| A3.3 Boring nature of tasks onboard | 16 | 33 | 40 | 83 | 24 | 0 | 0 | 2.66 | 196 |
| A3.4 Long working hours onboard | 19 | 47 | 65 | 53 | 12 | 0 | 0 | 3.04 | 196 |
| A3.5 Criminalisation of seafarers in times of maritime | 47 | 57 | 40 | 37 | 12 | 3 | 0 | 3.41 | 196 |
| A3.6 Long periods of voyage time | 17 | 60 | 56 | 46 | 15 | 2 | 0 | 3.06 | 196 |
| A3.7 Employers not being supportive during times of | 39 | 64 | 52 | 30 | 9 | 2 | 0 | 3.45 | 196 |
| A3.8 Fewer crew onboard | 27 | 63 | 61 | 31 | 12 | 2 | 0 | 3.29 | 196 |
| A3.9 Limited career opportunities for training and | 28 | 59 | 37 | 55 | 14 | 2 | 1 | 3.13 | 196 |
| A3.10 Disruption of sleep onboard | 26 | 61 | 54 | 45 | 9 | 1 | 0 | 3.24 | 196 |
| A3.11 Piracy | 21 | 25 | 72 | 43 | 26 | 8 | 0 | 2.73 | 195 |
| A3.12 Poor condition of accommodation | 11 | 35 | 57 | 65 | 27 | 1 | 0 | 2.67 | 196 |
| A3.13 Limited communication facilities onboard (e.g. | 41 | 68 | 31 | 40 | 14 | 2 | 0 | 3.39 | 196 |
| A3.14 Salary payment problems | 13 | 26 | 59 | 67 | 28 | 3 | 0 | 2.59 | 196 |
| A3.15 Too much workload | 14 | 61 | 69 | 38 | 13 | 0 | 1 | 3.13 | 196 |
| answered question | | | | | | | | | 196 |
| skipped question | | | | | | | | | 2 |

Source: Author

From an industry perspective, identifying and having a proper understanding of the factors that make seafaring less attractive is quite necessary to significantly improve the ability of shipping industry employers to attract potential people into a seafaring career. Previous research (see for example, McLaughlin 2012) suggests a difficulty in attracting young as well as highly skilled people in developed nations into a seafaring career. A more careful look at the first seven accepted factors (in order of ranking – Figure 5.2) for question A3 shows that they are directly related to the shipping industry due to its peculiar nature. Although some may be organisation-specific and could be addressed from that level, issues related to

piracy, limited shore leave, fewer crew and disruption of sleep patterns are highly characteristic of the seafaring career (Oldenburg et al. 2009; Oldenburg & Jensen 2012). Some factors such as limited shore leave for seafarers during their swing emerged as a result of the dynamic nature of the industry in the area of changing regulations. Thus these issues significantly impact on the attraction of young people into the seafaring career in developed countries. However, the results have shown that the Australian shipping industry is quite unique since a long swing time is not much of an issue. Also, the relatively high salary levels in the Australian shipping industry could lessen the extent to which the factors in Figure 5.2 could make seafaring unattractive to young people. This may however not be the case in developed maritime nations where salaries are not relatively high and swing times are long compared to Australia.

To gain a deeper understanding of how the identified factors make seafaring less attractive among the respondents, the following open-ended questions: A4, B2, B3 and C2 (the full questions are shown on the last two pages) were analysed using a content analysis technique described in section 5.4.3 *Expectations of new entrants* (Elo & Kyngäs 2008). In total, 124 of the 198 seafarers who participated responded to the aforementioned open-ended questions. The results are presented in the next two sub-sections:

5.5.1.1 Limited communication and lack of shore leave

The results from the web-based survey show that respondents regard the ability to contact loved ones, family members and friends while working at sea as a very important aspect of their working life as seafarers. To them communication is a very important remedy for the increasing isolation they are exposed to onboard. Isolation among the respondents is not caused by the traditional multicultural nature of crew onboard ships as found in previous studies (see for example, Hill 1972; Thomas, Sampson & Zhao 2003) but rather the improved access to internet connection. Thus increased and free access to communication between the ship and home enable the respondents to constantly contact their families on the landside. This negates the downside of the isolation that is caused by the seafarers

increasingly staying in their cabin to browse rather than socialising with their colleagues onboard. The high cost of communication technologies often lead to limited interaction between seafarers onboard and their families on the landside. As one respondent echoed, this makes the seafaring career less attractive:

Satellite internet is available albeit quite slow and often not particularly useful. 3G is available on around 70% of the time. However on an overseas voyage this level of communication would be greatly diminished and this would be a negative aspect (Second Officer working on a tanker).

Another important factor that the respondents mentioned as important in their seafaring career is the opportunity to visit places on the landside when their ship calls at a port. Thus many respondents concurred that access to occasional shore leave has diminished over the years. This according to them makes the seafaring career less attractive as the desire to have adventure and see more places in the world was one of the reasons why they opted for a career in seafaring. As one ship officer puts it:

Common misconceptions about merchant navy led me to believe navigation officers lead a particularly illustrious lifestyle. In reality, I find that we're overworked and relatively low paid for our level of training and responsibility. Shore leave is quite rare and because of the level of work I use any available time to catch up on sleep I've missed due to bad weather (Ship Officer).

In the today's shipping industry, the provision of effective communication systems onboard and the granting of occasional shore leave to seafarers need to constitute important aspects of worklife balance strategies. This may help improve retention among ship officers.

5.5.1.2 Working conditions: Lack of appropriate training and career options

Some other important issues regarded by the respondents as being crucial to making seafaring attractive is the working conditions. The respondents 192 (98%)

complained of the limited training given to them by employees. Mostly, the training is not inclusive enough to broaden their career options on the landside of the maritime industry. Consequently most seafarers may join employers willing to provide them with a broader range of training opportunities or leave to landside jobs in the absence of the former. A sample of the comments given by the respondents suggests that they find the unwillingness of employers to give adequate training to them as making the job unattractive.

My present employer is an Australian company with Australian registered ships and Australian crew. I feel that the only training or mentoring I receive is from a select number of officers. The training culture on Australian ships is completely different; with a lack of motivation to teach and or learn. I find that I do not receive much in the way of training. Career progression for me is very difficult. This is negative for someone like me who wishes to learn and progress through the ranks (Junior Officer on oil tanker).

Opportunities to develop one's skills beyond seafaring; particularly with respect to obtaining landside-relevant skills and qualifications is limited. A master's ticket has limited recognition ashore. By your mid-twenties you tend to come to a crossroads in your seafaring career. You usually have found a partner, have desires for children, have a mortgage, etc. The emotional pressures to come ashore are enormous. The challenge then is to decide whether your career remains at sea or you come ashore. But so many seafarers who come ashore at that stage, if they don't get associated maritime work (marine surveyor, pilot, harbour master, etc.) tend to go into areas like the police or other public sector areas. Others end up as car salesmen or garden maintenance, etc... Quite a waste of talent! ... (Ship Master - over 20 years' experience).

Seafarers view the limited opportunities for training as a hindrance to their career progression. Given that many seafarers may eventually want to move to landside

jobs, adequate resources need to be allotted for the acquisition of broader skills. Also, shipping industry employers need to improve their onboard mentorship programmes to ensure rigorous training for cadets and junior officers. This may lead to reduced attrition among seafarers in the early years of their career.

5.5.2 Factors that may influence the decision to stay

In this section of the data analysis, the main objective is to identify the underlying personal and organisational factors that might contribute to the motivation of seafarers to continue working onboard ships. Thus the driving purpose for this section is to ascertain whether and to what extent the variables relating to the personal and organisational factors may influence the seafarer to stay in an organisation and continue working onboard the ships. Two steps were followed to arrive at a logical conclusion. Firstly, the mean scores of items under questions D1 (personal factors) and D2 (organisational) were compiled and ranked (Appendix L). Secondly, a content analysis of open-ended questions A2, B3 and D10 was done to explain the underlying reasons for which people may decide to continue and work as seafarers onboard ships.

5.5.2.1 Personal factors

The scale items in question D1 (Appendix B) sought to rate the importance of nine scale items in motivating seafarers to continue to work onboard ships at sea. The mean scores showed (shown in Table 5.8) for all the items are well above the midpoint of 3 on a five-point Likert scale. This suggest acceptance from the respondents that such personal factors have significant bearing on their decision to continue to work onboard ships as seafarers. It is however important to identify which of the factors among the nine items have the most impact in the decision making process. Six out of the nine scale times registered mean scores above four. Most of these factors relate directly to the job characteristics of the respondents. The rating of D1.5 as the most important personal reason for which respondents may continue to work onboard ships at sea corresponds with previous findings (see for example, Haka et al. 2011) made in relation to the working life of seafarers.

Table 5.8: Personal reasons to continue working onboard ships as a seafarer

| | Personal factors | Count | Mean | Rank |
|------|---|--------------|-------------|-------------|
| D1.5 | Maintaining the current ratio of voyage to vacation periods | 187 | 4.43 | 1 |
| D1.1 | Relatively good salary compared to landside jobs | 187 | 4.31 | 2 |
| D1.6 | Good working relationships with my colleagues onboard | 187 | 4.30 | 3 |
| D1.8 | Feeling of being valued by my employer | 187 | 4.24 | 4 |
| D1.9 | Having a permanent employment contract | 187 | 4.21 | 5 |
| D1.4 | Opportunity to frequently contact my family on land | 187 | 4.02 | 6 |
| D1.7 | Good working relationships with my superiors onboard | 187 | 3.97 | 7 |
| D1.2 | My ambition to become a ship officer | 187 | 3.35 | 8 |
| D1.3 | My ambition to become a ship master | 187 | 3.18 | 9 |

Source: Author

In a similar trend as their foreign counterparts, Australian seafarers regard a commensurate balance between work and vacation as a very important aspect of their career. As a result of the premium placed on vacations, a ratio of 1:1 has become commonplace in the working contracts of Australian seafarers (Table 5.5). This is very important when one considers that a diminishing worklife balance accounts for 85% of the reasons for seafarers moving from sea to pursue a landside career (Dimitrova & Blanpain 2010; Thomas, Sampson & Zhao 2003). Thus, providing seafarers with family-friendly working schedules may motivate them to continue to work at sea. The respondents emphasised how salaries and working conditions may influence them to stay onboard ships in a response to the following questions items:

- A2: What other factors (as chosen in question A1.10) influenced your decision to become a seafarer? and
- B3: Please explain what influenced your expectations:

There is a substantial leave entitlement paired with high salary prospects. Initially I chose to go to sea for the adventure, and over time the adventure becomes less and less and the key reason for remaining at sea thereafter is the salary and leave (Chief Officer – 15 years' experience).

I had limited knowledge before starting my cadetship. Amount of leave, time on time off leave ratio is a major attraction... (Junior Officer – supply vessel).

These responses support the high rating for question item D1.5 and also *D1.1 ‘Relatively good salary compared to landside jobs’ (4.31)*. This equally reaffirms the premium placed on salary as an important personal factor for continued work at sea among Australian seafarers. The response given by one deck officer and ship master to question D10 (Appendix B) sums up the importance attached to salary by Australian ship officers:

I fear the Australian industry has bred seafarers who believe their current career is an easy way of making a good amount of money and gain little actual enjoyment in what they do which in turn leads to a lack of motivation to progress or help in the progression of others (Second Deck Officer).

...I have no desire to go shore based unless the package was similar (which will be very rare). I work long hours and spend time away from family and friends but I'm paid very well, and get excellent leave... (Ship Master – 18 years' experience).

Whereas there are other reasons seafarers may continue in their respective careers, careful scrutiny of the responses given to the scale and open-ended questions for this study suggests that access to adequate leave time and good salary are the two leading personal reasons for Australian seafarers remaining and working onboard ships.

5.5.2.2 Organisational factors

Among the items given for organisational factors under question D2 (see Appendix B), *D2.4 ‘Good working conditions onboard’ (4.31)* and *D2.3 ‘Supportive organisational culture’ (4.14)* respectively received the first and second highest mean scores. It is closely followed by *D2.5 ‘Good mentorship from superiors onboard’ (3.98)* and *D2.2 ‘Provision of recreational facilities onboard’ (3.94)*. The expressions of many of the respondents highlight the importance that seafarers attach to working conditions onboard ship while working at sea. Poor working conditions are frequently labelled by the respondents as the main reason for fatigue

and stress among them. The following statements were made concerning the problem of poor working conditions onboard ships:

The general deterioration of overall conditions on the average modern merchant vessel is leading to more stress and fatigue these days (Chief Officer – general cargo ship).

...there are other substandard tankers getting around with the worst conditions and malpractice. The oil majors go on about safety until the cows come home and preach it in OCIMF inspections but these oil majors still allow the most substandard of vessels to berth in their terminals (Master – 10 years working experience on tankers).

The respondents, as indicated in the comments regard support from their employer and superiors onboard as crucial towards their continued stay at sea. One area of support that respondents emphasised as being close to their career ambitions is in the area of training. This area is however lacking as the sort of training provided by employers does not provide genuine future career opportunities to Australian seafarers. Where a seafarer desires to pursue a particular kind of training outside the spectrum of what is offered by their employer, the individual may have to bear the costs of the training for it to become a reality. Commenting on the lack of support from Australian shipping industry employers in the area of training, two deck officers remarked:

When the major Australian shipowners existed (BHP, ANL, ASP etc), training was not an issue. But the increasing casualisation of the workforce, project-based work (dredging, oil and gas), means that training is something that is enforced only by unions through enterprise agreements. I have not received any training from any employer in the last two years - I have had to pay for it all myself. Cadets are employed only because they have to be, and their training is not adequately supported. Employers do not care. The offshore is particularly bad for this - they only want fully qualified and experienced

Dynamic Positioning (DP) operators for casual work, they are not prepared to train anyone (Second Officer – supply vessel).

...Employers chose not to sponsor training anymore. I have been lucky to receive mentoring from a training master. This was for the company to mitigate their risk in the event of an incident by saying that the master has been trained. The biggest challenge in training is income support for the duration of the training (Junior Officer – LNG tanker).

Given the importance that seafarers attach to their training needs for subsequent career progression, it is important that shipping industry employers map out specific strategies to meet such a need. This requires appropriate budget allocations to meet the specific training demands that the career ambitions of seafarers may require.

5.5.3 Factors that may influence the decision to leave

In the previous section, the factors that are more likely to motivate seafarers to continue working onboard ships were examined. In this section the factors that might contribute to the movement of seafarers from ships to landside jobs is examined. Specifically, the predictive power of the scale items in questions D6 – D9 on the mobility of ship officers to landside jobs is investigated. To achieve this, an Exploratory Factor Analysis (EFA) was done to reduce the number of independent variables (46 in total but reduced in final EFA) in questions D6 – D9. Apart from reducing the large number of the variables, the EFA technique was used as the procedure provide more accurate results when each common factor is represented by multiple measured variables in the analysis (Fabrigar et al. 1999; Williams, Brown & Onsman 2012). Reducing the independent variables (also known as factors) is necessary to help identify the underlying latent constructs and aid a parsimonious interpretation of the data (Williams, Brown & Onsman 2012; Yong & Pearce 2013). Secondly, the factors realised after the EFA were compared and discussed alongside the results of the content analysis done for open-ended questions in the web-based survey. This was necessary as there was no hypotheses about the nature of the

underlying factor structure (Williams, Brown & Onsman 2012; Yong & Pearce 2013); and combining the EFA results with the open-ended questions helped to adequately explain how the identified factors influence the decision to move to landside jobs among seafarers in the Australian shipping industry (Costello & Osborne 2005; Williams, Brown & Onsman 2012).

5.5.4 Exploratory factor analysis and results

In questions D6-D9 (see Appendix B) respondents were asked to rate how certain factors would influence their decision to leave to landside jobs. In doing the factor analysis, the five key issues outlined in the literature (see for example, Pallant 2011; Yong & Pearce 2013) were considered in a systematic manner. These five issues are: i) determining the suitability of the data for the factor analysis; ii) extraction method; iii) deciding on the criteria for the extraction of factors; iv) choice of rotation method and finally v) interpretation and labelling of the factors. Table 5.9 provides details of the decision logic in relation to these five issues (steps) for the current study.

Table 5.9: Steps, criteria and decision lines for factor analysis

| Step/issues | Literature: Options and thresholds considered | Decision for the current study |
|----------------------------|---|--|
| Suitability of data | Sample size: Should be 100, 200, 300 & 500-1000+. A sample size of 150 is considered sufficient in most cases where factor loadings is high (Pallant 2011; Tabachnick & Fidell 2007). | The current cases of 172 for this study meet the average sample size of 150. |
| | Sample to variable or N:p ratio: Commonly used ones are 3:1, 6:1, 10:1, 15:1 & 20:1. The 10:1 is mostly preferable but five cases for each variable are better. | Based on a 5:1 ratio, the 33 items for the current data set requires 165 cases (exceeded by the 172 cases). |
| | Strength of inter-correlation: Correlation co-efficient among items may be 0.3(minimum), 0.4 & 0.5 (significant). | Correlation co-efficient among variables for this study lies moderately at 0.3. Moderate to high extraction scores of .4 to .8 (see Appendix M) obtained denotes strength and suitability of data for factor analysis. |
| | The Bartlett's Test of Sphericity: At $p < 0.05$ denotes sufficient correlation among items | The Bartlett's Test of Sphericity is significant at $p < .000$ (Table 5.10). Also denotes suitability of the data |

| | | |
|-------------------------------------|--|---|
| | | for EFA |
| | Kaiser-Mayer-Olkin (KMO) index: Ranges from 0 to 1 with 0.50 considered suitable. However 0.60 is better. | KMO index is 0.91 (Table 5.10) which is larger than the recommended value of 0.60. |
| Extraction method | Many extraction methods exist namely: principal component analysis (PCA), principal axis factoring (PAF), image factoring, maximum likelihood, alpha factoring, canonical, image, etc. PCA & PAF are commonly used and the former is often the default in most software packages. | PCA was used for this study due to the following reasons: There are more than 30 variables, need to explain variance in dataset and ability to provide a clear factor structure (Pallant 2011; Tabachnick & Fidell 2007; Yong & Pearce 2013). |
| Criteria for extraction | Key criteria used to determine extraction methods are: Kaiser rule (Eigenvalue >1), scree plot and parallel analysis. A combination of the multiple rules (criteria) in each given case is a recommended approach. | The Kaiser rule and scree plot rules of extraction were applied in choosing the appropriate number of factors. This was necessary to ensure that the output explains at least 60% of the cumulative variance (Rovai, Baker & Ponton 2013; Williams, Brown & Onsman 2012; Yong & Pearce 2013). |
| Rotation method | Rotation is needed to maximise high loading items for simplified solution and to reduce ambiguity. Orthogonal (sub-types: Varimax/Quartimax) and Oblique (Olbinim/Promax) are the two types; with the later mostly preferred due to its ability to produce more correlated and more accurate factors (Rovai, Baker & Ponton 2013; Williams, Brown & Onsman 2012; Yong & Pearce 2013). | The Oblique Promax rotation technique with a Kaiser normalisation was used for the current study for the production of a more correlated factor structure. It was also used because of the presumption that the factors are correlated (Williams, Brown & Onsman 2012) as per the literature review in Chapter 3. |
| Interpretation and labelling | When interpreting, the factor loadings are used to ascertain the strength of relationships. A significant loading cut-off is set to simplify the interpretation and reduce the number of cross-loadings. "A rule of thumb is, using an alpha level of .01 (two-tailed), a rotated factor loading for a sample size of at least 300 would need to be at least .32 to be considered statistically meaningful" (Tabachnick & Fidell 2007). No rules are applied in labelling as it is more of a skill which gets better with dexterity and it is inductive. | The variables were examined and those attributable to factor determined and then the factors were named based on the themes covered by their respective variables. Care was taken to ensure that the labels or constructs reflect the theoretical and conceptual intent (Williams, Brown & Onsman 2012). Also, the factor loadings (Appendix N) were used for interpretation. |

Source: Author

The validity of the approach used for the EFA is evidenced by the systematic determination of the suitability of the data, choosing of a scientifically accepted extraction method as per the parameters of the data, setting criteria for the extraction and choosing a sound rotation method.

5.5.4.1 Four-factor solution

The EFA for questions D6-D9 of the web-based survey instrument was done using SPSS version 22 (IBM Corp 2014). Initial analysis of the dataset shows that the data is suitable for an EFA as all assumptions given in the literature were met (as per Tables 5.9 and 5.10). For instance, the 172 cases realised for the EFA analysis in this study exceeds the minimum recommended 150 average sample size. Also, the Bartlett's Test of Sphericity is $p < .000$; signalling the suitability of the data for the performance of an EFA. Furthermore, a KMO of 0.91 is far larger than the recommended value of 0.60.

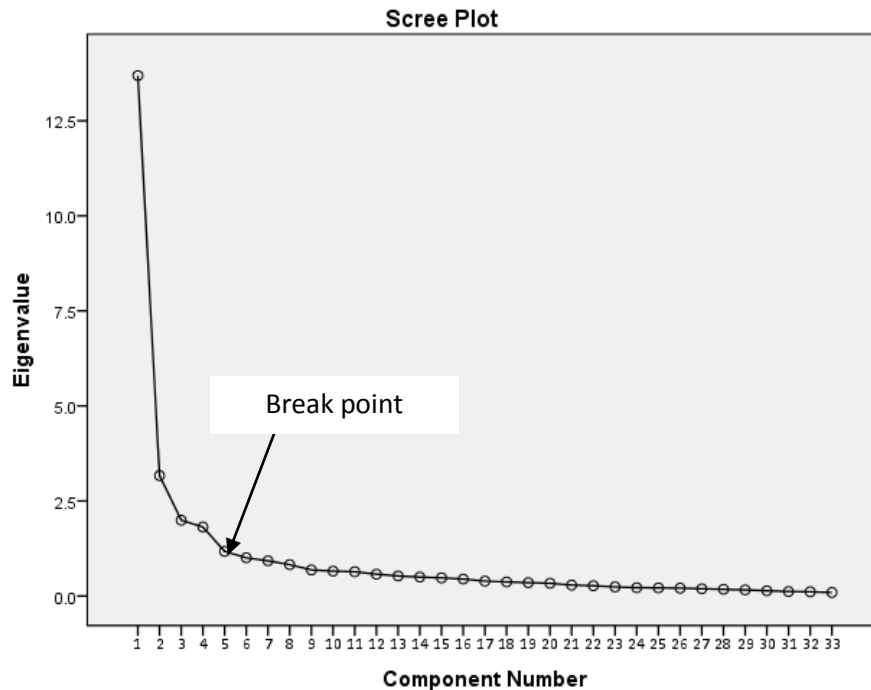
Table 5.10: KMO and Bartlett's Test

| | | |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .910 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 4175.890 |
| | df | 528 |
| | Sig. | .000 |

In determining the number of factors to extract, the *Total Variance Explained* table (Table 5.11) was consulted. Using the Kaiser criterion, the results in Table 5.11 shows six factors as having eigenvalues exceeding 1. These six factors which have a cumulative variance explaining 69.23% of the dataset are: 13.690, 3.168, 1.993, 1.816, 1.175 and 1.006. Since the factors generated are too many after application of the Kaiser rule, the initial screeplot (Figure 5.3) was further used to determine the number of factors to extract. A vivid breakpoint is shown at the fifth factor (component). This suggests a four-factor solution which is fewer than the six factors realised with the application of the Kaiser rule of eigenvalues. Since the four-factor solution resulting from the screeplot produces a cumulative variance of 62.62%, a decision is made to retain the four factors. In an EFA, it is very important to check if the model is a good fit. To do this, Yong and Pearce (2013) recommends looking at

the summary of the percentage of the non-redundant residuals at the Reproduced Correlation Matrix. The rule of thumb is that a model that is a good fit should have less than 50% of the non-redundant residuals with absolute values that are greater than .05. The Reproduced Correlation Matrix (see Appendix M) shows that it is a good fit model as there are 150 (28.0%) non-redundant residuals with absolute values greater than 0.05.

Figure 5.3: Screeplot of the factor analysis



In Appendix N, the final Patten Matrix and Structure Matrix with the corresponding loadings and commonalities are shown. The results show each item with substantial loadings; with a moderate to high correlation among the factors (Table 5.12). In total, the four factors have 33 items with a factor loading of .5 or above. Thus the PCA with a Promax rotation type led to a clear factor structure with reasonable factor loadings for most items. All the items were retained as 26 out of the 33 recorded high (values greater than 0.8) and moderate (0.40 to 0.70) loadings (Costello & Osborne 2005). The high item loadings for most of the items is an indication of the general agreement among the respondents of their impact on decisions connected to moving from ships to landside jobs. Also all the 33 item

loadings for the four factors were retained since none of them fell below the 0.32 or below which is considered to be below statistical significance (Costello & Osborne 2005; Field 2005).

Table 5.11: Total variance explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings ^a |
|-----------|---------------------|---------------|---------------|-------------------------------------|---------------|--------------|--|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total |
| 1 | 13.690 | 41.484 | 41.484 | 13.690 | 41.484 | 41.484 | 11.015 |
| 2 | 3.168 | 9.601 | 51.086 | 3.168 | 9.601 | 51.086 | 9.927 |
| 3 | 1.993 | 6.039 | 57.125 | 1.993 | 6.039 | 57.125 | 7.884 |
| 4 | 1.816 | 5.502 | 62.627 | 1.816 | 5.502 | 62.627 | 7.999 |
| 5 | 1.175 | 3.562 | 66.189 | | | | |
| 6 | 1.006 | 3.047 | 69.236 | | | | |
| 7 | .927 | 2.809 | 72.044 | | | | |
| 8 | .826 | 2.502 | 74.547 | | | | |
| 9 | .687 | 2.082 | 76.628 | | | | |
| 10 | .656 | 1.987 | 78.615 | | | | |
| 11 | .640 | 1.939 | 80.554 | | | | |
| 12 | .575 | 1.742 | 82.296 | | | | |
| 13 | .529 | 1.603 | 83.899 | | | | |
| 14 | .500 | 1.515 | 85.413 | | | | |
| 15 | .478 | 1.448 | 86.862 | | | | |
| 16 | .446 | 1.351 | 88.213 | | | | |
| 17 | .393 | 1.190 | 89.403 | | | | |
| 18 | .373 | 1.129 | 90.532 | | | | |
| ... | ... | ... | ... | ... | ... | ... | ... |

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 5.12: Component correlation matrix

| Component | 1 | 2 | 3 | 4 |
|-----------|-------|-------|-------|-------|
| 1 | 1.000 | .626 | .450 | .491 |
| 2 | .626 | 1.000 | .384 | .422 |
| 3 | .450 | .384 | 1.000 | .461 |
| 4 | .491 | .422 | .461 | 1.000 |

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalisation.

As per the pattern matrix in Appendix N, the first component of the four-factor solution is made up of 11 items. These items are:

- *D7.1 Poor working conditions onboard (.738);*
- *D7.2 Lack of new and fresh challenges (.651);*
- *D7.4 Lack of opportunities for training (.702);*
- *D7.5 Lack of opportunities for progression to higher ranks onboard (.770);*
- *D7.6 Continual refusal of shore leave during port hours (.506);*
- *D7.7 Lack of recreational facilities onboard (.649);*
- *D7.8 Dissatisfaction with the employer (.800);*
- *D7.9 Lack of a supportive organisational culture (.875);*
- *D7.10 Bullying from superiors or workmates onboard (.796);*
- *D7.11 Inability to contact family from sea (.600); and*
- *D7.12 Poor mentoring from superiors onboard(.769)*

The first component is labelled **organisational factors**. This labelling was based on the realisation that all the 11 items for the first component relates to the employer. As discussed earlier in Table 5.9, there are no rules in the labelling of items. It is a discretionary process which is often left at the ingenuity and dexterity of the researcher (Tabachnick & Fidell 2007). Component two is labelled **extrinsic factors** because the items relate to motivational factors which do not form part of the employee (not inherent). Also, the items directly relate to wages and working conditions. In total, component two consists of eight items:

- *D9.1 Late payment of salary (.865);*
- *D9.3 Salary not increasing within an expected period (.706);*
- *D9.4 Persistent failure of employer to pay salary due to financial problems (.832);*
- *D9.5 Lack of long service bonuses (.743);*
- *D9.6 Problems with being granted sick leave (.856);*
- *D9.8 Lack of compensation schemes (.634);*
- *D9.9 Poor food onboard (.552)and*
- *D8.1 Jailing of seafarers for operational error (.624).*

The third component which consists of eight items is a general reflection of individual reasons underlying the movement of ship officers from ships to landside jobs. Thus the third component is labelled **personal factors**. The items comprising this component are:

- *D8.5 Loneliness while at sea* (.541);
- *D8.10 Staying long time at sea away from family* (.536);
- *D6.1 To live in a relationship* (.811);
- *D6.2 Desire to start a family* (.876);
- *D6.3 To care for aging parents* (.761);
- *D6.4 Family stress* (.783);
- *D6.5 Financial stress* (.752)and
- *D6.7 Desire to work on land* (.616).

Finally, the fourth component is labelled **industry factors** as it concerns issues peculiar to the shipping industry and seafaring career and how they may impact on decisions among ship officers to move to landside jobs. There are six items loaded under this component:

- *D8.3 Small crew size onboard* (.635);
- *D8.4 Too much paperwork to be done per voyage* (.846);
- *D8.7 Onboard fatigue* (.700);
- *D8.9 Lack of adequate rest* (.590);
- *D8.11 Too much workload onboard* (.770) and
- *D8.14 Availability of job opportunities on land* (.540).

The loading of items and their labelling corroborates the classification given to the various items as per the literature review in Chapter 3 of the current study. The size of the factor loadings (that is correlation coefficient of the items and their respective factors) was used to label and interpret the results of the EFA. All the items shared a positive correlation with their respective factors (see Table 5.11 and 5.12). This (apart from the reproduced correlation matrix of Appendix M) further supports the construct validity of the model as there are 150 (28.0%) non-redundant residuals with absolute values greater than 0.05 (Williams, Brown & Onsman 2012; Yong & Pearce 2013). The next four subsections will discuss the

findings (four factors) in relation to the literature and the seafaring retention model shown in Figure 3.8.

5.5.4.2 First component: Organisational factors

The items (already outlined in section 5.5.4.1) that make up the first component of the four factor solution are derived from question D7 of the web-based survey instrument (Appendix B) which focuses on employer-related factors that may cause the individual seafarer to move from ship to landside jobs. All items were above 0.50. Three of the 11 items for this factor had loadings between 0.80 - 0.88. They include: *'dissatisfaction with the employer'* (0.80), *'lack of a supportive organisational culture'* (0.88), and *'bullying from superiors or workmates onboard'* (0.80). The high loading for these items suggests that Australian shipping industry employers need to focus on developing a strong organisational culture to produce a worker-friendly climate for mentorships onboard. This could alleviate dissatisfaction with an employer which when left unchecked can lead to a decision to move to landside jobs. It appears one of the areas that employers need to provide more support to seafarers is training and education. Item *'D7.4 Lack of opportunities for training'* which covers this issue had a loading of 0.70. Thus the provision of training is one of the organisational issues that needs to be addressed by Australian shipping industry employers to enable them reduce the rate of attrition among the seafarers working onboard their ships. This is supported by comments from some of the respondents on open-ended questions C2 and D10 (see full details of questions in Appendix B).

...training is now something that is enforced only by unions through enterprise agreements... I have not received any training from any employer in the last 2 years - I have had to pay for it all myself. Cadets are employed only because they have to be, and their training is not adequately supported. Employers do not care. (Junior Officer –1 year international experience and 3 years tanker experience in Australia).

The biggest challenge in training is income support for the duration of the training (Ship master – 5-6 years of onboard mentorship experience).

Unwillingness to pay for the acquisition of my OOW [Officer on Watch] certification led me to seek a scholarship to fund my training. In addition, training courses that are not very relevant to the job are generally put off for a long time or outright refused, despite continued appeal (Chief Officer – 8 years bulk carrier experience).

The comments give an indication of the premium placed on training by seafarers. The lack of support for training among seafarers is not a silent issue in the literature (Cahoon, Caesar & Fei 2014; Corkhill 2005; Demirel & Mehta 2009) and the findings for this study reemphasises its importance and particularly gives an indication of its ability to influence seafarers to move to landside jobs. Specifically, financial support to complete training schedules is regarded as a very key aspect of the support that shipping organisations will need to provide seafarers. However, the financial support is not given by employers. Where financial support is provided, the type of training provided is not what seafarers usually want. One respondent expressed their desire to receive management and leadership training rather than job-related skill acquisition.

They find it hard to allow crew off the roster for long periods, and pay large training costs. Their view of career pathways is the qualifications required to win a next level promotion, not the finer learning steps to get there, maritime, management, leadership, OHS, mentoring, etc. I believe there should be redundancy built in, crew trained to perform higher level position and cover vacant positions due to injury, illness, leave, training, etc (Chief Engineer – 8 years bulk carrier experience).

Whether Australian shipping industry employers are willing to provide adequate training support for their seafarers is largely dependent on the value they place on succession planning (Caesar 2013). Another area of support is a well-planned

mentorship programme onboard where senior officers can place their skill, knowledge and operational experience at the disposal of cadets and junior officers. Additionally a properly planned onboard mentorship programme may help to reduce attrition among cadets and other junior officers. As two of the respondents put it:

I greatly value the strong support from my masters and company. This has made me to continue working for the company over the years (Deck Cadet – oil tanker).

...On a final note, if it wasn't for the support offered by fellow crewmates I'd probably be looking for shore based positions (related to the industry) (Engine Cadet – oil tanker)

One of the key items connected to organisational factors is the working condition onboard the ships. Poor working conditions onboard international fleets is noted as one of the key demotivating elements for seafarers (Haka et al. 2011; Oldenburg et al. 2009). The ability of poor working conditions to influence seafarers to move to landside jobs is evidenced by the 0.74 loading obtained for item “D7.1 Poor working conditions onboard” under component 1 of the results (shown in the pattern matrix of Appendix N). This indicates that shipping industry employers should pay attention to the working conditions of their seafarers. The model in Figure 3.8 (discussed in section 3.6 of Chapter 3 and commented on in sub-section 5.5.4.1) suggests that good working conditions may give seafarers a better perception of the seafaring career which may lead to their eventual retention. This is confirmed by the open-ended responses given by the respondents.

My experience has been positive...I was working for an organisation that went to interesting places and had fairly (but not perfect!) good conditions onboard. Our ships were comfortable and there was enough free time to explore and enjoy sailing the world. Also nature of our work had a lot of

support and reward (Master – combined 15 years of experience on LNG and oil tankers).

Although working conditions on Australian ships are relatively better, there are still opportunities for improvement. The elongation of duty tour is one area identified as needing attention from employers. According to one of the respondents:

Generally, I enjoy it; although it's worth mentioning that there are vast improvements to be made with working conditions. For example, I've currently been on this ship for three weeks now and I still don't know when I'm getting off. I'd like to be able to plan my life so I can spend time with my daughter and family (3rd Engineer – oil tanker).

Strategies necessary to improve the attractiveness of seafaring and work onboard ships must be vigorously pursued by shipping industry employers. From an employee perspective, identifying and having a proper understanding of the personal factors that make seafaring less attractive is necessary to significantly improve the ability of shipping industry employers to attract potential people into a seafaring career.

5.5.4.3 Second component: Extrinsic factors

Items for the second component are derived from question number D9 of the web-based survey instrument (Appendix B). The eight items loaded on this factor are primarily related to the salary/payment issues and compensation schemes associated with the job of the respondents. However, items '*D8.1 Jailing of seafarers for operational error*' (0.62) and '*D9.9 Poor food onboard*' (0.55) had the lowest loadings among the eight items. A careful look showed that they are not directly related to the theme of the factor. Item D8.1 for instance is not connected to the question from which the items were drawn. The remaining six items registered significant loadings between 0.63 – 0.87 (see the pattern matrix in Appendix N). Prominently, items '*D9.1 Late payment of salary*' (0.87), '*D9.4 Persistent failure of employer to pay salary due to financial problems*' (0.83) and '*D9.6 Problems with being granted sick leave*' (0.86) had loadings above 0.80. This

demonstrates the importance that Australian seafarers attach to salary/payment issues. Whereas the literature (see for example, Barnett et al. 2006; Gold 2004) suggests that the motive for going to sea among seafarers from developed countries is mostly non-economic, the findings in this study shows that seafarers in Australia are attracted to work at sea due to the high salaries their predecessors enjoy and will continue to work at sea while such conditions persist. Given that Australian seafarers do not experience salary payment problems, D9.1 recorded the highest loading; denoting that salary is an issue that Australian shipping industry employers must devote attention to avoid attrition connected to payment problems. The premium placed on salary by Australian seafarers (see also Table 5.4) is evident in the following statements from some of the respondents:

Initially I chose to go to sea for the adventure, and over time the adventure becomes less and less and the key reason for remaining at sea thereafter are for the salary and leave (Chief Engineer – 7 years' experience mostly offshore).

...many Australian seafarers seem to only be at sea purely because it pays very well (Ship master – oil tanker).

... the high ranks are having no more prospect for improvement, seek better situation i.e. better salary and/or better or improved social life, etc. ashore [2nd Engineer – Floating Production Storage and Offloading (FPSO)].

Currently the past 2 years as Master on an Aussie manned Tanker we don't have the social atmosphere but we do have the better salary (Master – oil tanker)

With the expectation of earning high salary while working at sea, an Australian seafarer is more likely to leave when such expectations are not met. Such an understanding among employers has seen an upsurge in the salary levels for

Australian seafarers in recent times; with intense competition between employers in the blue water and oil and gas sectors for skilled seafaring talents.

5.5.4.4 Third component: Personal factors

According to the EFA output, five out of the eight items for this component recorded factor loadings above 0.70. The items are: '*D6.1 To live in a relationship*' (0.81), '*D6.2 Desire to start a family*' (0.88), '*D6.3 To care for aging parents*' (0.76), '*D6.4 Family stress*' (0.78) and '*D6.5 Financial stress*' (0.75). It appears these items have high factor loadings as they are directly related to the theme (which concerns the individual underlying reasons for which seafarers may leave work on ships to pursue landside jobs). It is evident from the literature (see for example, Shiptalk 2008; Thomas, Sampson & Zhao 2003) that personal issues account for more than two third of the reasons why seafarers may quit working onboard ships to pursue landside opportunities. It is very difficult for shipping industry employers to manage personal reasons such as the desire to start a new family among seafarers. Generally, these personal reasons are the main cause of the difficulty in adequately managing and retaining seafarers at sea (Caesar, Cahoon & Fei 2013). The strong influence of personal factors on the movement of seafarers from ships to landside jobs signals the need for a greater understanding of the issue among industry employers. For instance, items D6.1 and D6.2 were found to apply more to younger seafarers who fall within Generation Y as per Figure 3.8. This is because the expectations of the younger generation of ship officers differ from their predecessors (Caesar, Cahoon & Fei 2014; Cahoon, Caesar & Fei 2014). Hence the need for industry employers to critically scrutinise these differences and address them is essential to reduce the early exit to pursue landside careers.

One of the strategies through which shipping industry employers can manage the personal reasons connected to family is to provide communication facilities onboard ships for seafarers to be in contact with their loved ones while working at sea. This is confirmed in the following comments to open-ended questions from the respondents:

Generally a fast broadband internet connection for communicating with family on land is very necessary to me (3rd Engineer).

That the liberty of having family units and partners to accompany officers and crew on board was eroded over time leading to further isolation on board (Engineer – 6 years of experience on dry bulkers).

Separation from family and home has been found to be one of the most important personal issues contributing to attrition among seafarers (Haka et al. 2011; Thomas, Sampson & Zhao 2003). Contact with home can be particularly important as it offers a platform of communication between seafarers and their spouses, children and family members. In maintaining relationships with the family and shore-based parties the frequency of contact needs to be improved to avoid an eventual exiting to landside jobs. Obstacles exist to improving the degree of contact between seafarers and their family on the landside while working onboard. For instance, frequent communication can be frustrated where employers are unwilling to pay for the costs of ship-to-shore communication for their crew. Also the use of internet communication technologies could be regulated by superiors onboard to the disadvantage of lower rank seafarers. Some responses to the open-ended questions during the web-based survey capture the key communication issues that need to be addressed by Australian shipping industry employers:

Satellite internet, it's a bit slow though. Satellite phone is available if you pay for it, relatively cheap to land lines but expensive to mobile phones and you have to tolerate a delay when speaking on it (Engine cadet).

...We have text email only, whereas others have full satellite internet/phone/email (Deck Cadet – Petroleum product tanker).

My current vessel has Wi-Fi, however the speeds it operates only allows you to open email, it does not enable Skype or FaceTime use (Junior Officer – Dynamic Position vessel).

Full internet but streaming not allowed...Slow and frustrating if there is access at all (Deck officer).

The above comments from respondents highlight the challenges with internet and other communication technologies available to seafarers while working at sea. On some ships, access to certain communication technologies is only limited to senior officers. A cadet working onboard one ship commented:

...Internet is only available to officers (Engine cadet).

Many seafarers having families become less satisfied with their jobs at sea and this significantly influences their decision to reduce years spent at sea. All seafarers share separation from partner and family as the most common reason for their departure to landside jobs (Barnett et al. 2006). Consequently, addressing the challenges associated with access to cheap and frequent communication can help alleviate attrition among them.

5.5.4.5 Fourth component: Industry factors

The items loaded on this factor concerns the peculiar features associated with the career of seafarers. The items which recorded significant loadings for this factor are: ‘D8.4 Too much paperwork to be done per voyage’ (0.85), ‘D8.7 Onboard fatigue’ (0.70) and ‘D8.11 Too much workload onboard’ (0.77). Although ‘D8.3 Small crew size onboard’ (0.64) had a relatively lower loading, it is also one of the key items that describes the theme of the fourth component. Most of the items loaded on this factor make the career of seafarers unique in many ways as they are mostly working away from home under demanding conditions. The peculiar nature of working onboard ships constitutes one of the key reasons why it is difficult to retain seafarers to work onboard ships. The findings (see the pattern matrix in Appendix N) also agrees with the literature (see for example, Oldenburg, Baur & Schlaich

2010) that increased work load and onboard fatigue could influence the decision of seafarers to move to landside jobs. Thus, the uniqueness of occupations in the shipping industry partially contributes to the difficulty in retaining people to work at sea. Other dimensions of the industry's peculiarity are stress and fatigue which is induced by high workload, extensive paperwork and reduced crew levels. Zaar and Hammarstedt (2012) found that stress and fatigue also contributes to the difficulty in retaining young seafarers.

The discussion on the four-factor solution revealed that the moving of seafarers from ships to landside jobs is provoked by a combination of issues which may be personal, organisation-based or industry-related. This highlights the multidimensional aspect of the ship officer attrition. Consequently, it is very important for Australian shipping industry employers to adopt multiple approaches for the improvement of retention among their seafarers.

5.6 SUMMARY

In this Chapter, the results of the web-based survey instrument were presented. The Chapter began with an identification and justification of the statistical techniques used to analyse the data. Principally, descriptive, inferential and multivariate statistics were used. With regards to the demographics of respondents and the response rate, the Chapter reports that in total, 198 responses were received equalling a 65 percent response rate. This is above the mean response rate of 57 percent given for previous studies which used web-based surveys. All participants reported their age except for the 20 missing cases. The most typical respondent ages were in the 47-65yrs (36.5%) and 34-46yrs (36.0%) range.

The second part of the Chapter reported on the factors that motivate people to become seafarers and their initial expectations. The results highlights the relatively strong influence that non-economic factors have on the decision making process of people who desire to become seafarers in developed nations. A total of 116 (65.2%) respondents indicated that they decided to become seafarers at the age range of 15-20yrs. This response is highly indicative of the age at which people become

seafarers in developed nations. Other reasons that were given by respondents for becoming seafarers are adventure and lifestyle of the seafaring career and career opportunities in the shipping industry. The desire to earn high salaries ranked as the most important expectation for the respondents at the time of becoming seafarers.

In the final section of the Chapter, the result (from an EFA and Content Analysis) of the factors that may motivate or demotivate people in the seafaring career is presented. The key factors identified as motivators for Australian ship officers can be categorised into personal and organisational. The personal factors (includes work to vacation ratio, permanent job contracts and contact with family on land) which relates to the job characteristics had much more influence on respondents compared to organisational factors (working culture, provision of training and onboard mentorship). The main demotivating factors that were identified were: limited communication with family, lack of shore leave, lack of career-oriented training and limited opportunities for progression. This Chapter provides a reflective understanding of how Australian seafarers perceive their career and also gives an indication of working conditions (issues) that may need to be improved for better retention rates among ship officers.

From the seafarer's perspective, the web-based survey provided valuable insights into issues that make the seafaring career unattractive. Furthermore, whereas there are other reasons for which seafarers may continue in their respective careers, careful scrutiny of the responses given to the scale and open-ended questions (from the web-based survey) suggests that access to adequate leave time and good salary are the two leading reasons for which seafarers would continue to remain working onboard ships at sea. The four-factor solution revealed that the moving of seafarers from ships to landside jobs is provoked by a combination of issues which may be personal, organisation-based or industry-related. This highlights the multidimensional aspect of the ship officer turnover problem. Consequently, it is very important for shipping industry employers to adopt multiple approaches for the improvement of retention among their seafarers. The next Chapter discusses

the findings from the phone interviews with senior managers of shipping industry employers in Australia (which is the second stage of data collection for the study).

CHAPTER 6: ANALYSIS OF DATA: PHONE INTERVIEWS OF SENIOR MANAGERS

6.1 INTRODUCTION

This Chapter discusses the findings from the phone interviews of senior managers of shipping industry employers in Australia. It presents the viewpoints of the managers on how seafarers are attracted into the industry and reasons why officers and other categories of seafarers leave the industry. The Chapter is divided into six key sections. Section 6.2 discusses and justifies the steps and qualitative techniques used to analyse the interviews transcripts. Section 6.3 of the Chapter presents the demographics of the senior managers and their respective companies.

Section 6.4 sets up the case for the rest of the current Chapter as it provides an analysis of the impact of the ship officer shortage on shipping industry employers in Australia. In section 6.5, the attraction and training of seafarers in the Australian shipping industry is discussed. Section 6.6 highlights the perspective of Australian shipping industry employers on the attrition (turnover) process among ship officers, the positive and negative reasons why seafarers may leave an organisation (or move to landside jobs) and the specific strategies being used to improve retention among ship officers. The general strategies employers use to avoid the shortage of ship offices onboard their ships is discussed in section 6.6. Section 6.7 presents a summary of the Chapter and highlights the key differences and similarities in the viewpoints of Australian seafarers and the senior managers (representing their employers) on issues such as the attraction, recruitment and retention of seafarers.

6.2 DATA ANALYSIS: TECHNIQUES AND PROCESS

Given its mixed methods approach, the current study has two aspects: quantitative and qualitative. The quantitative discussion was presented in Chapter five from the results of the web-based survey of ship officers in Australia. This Chapter focuses on the qualitative aspect which is from the semi-structured phone interviews with senior managers of shipping industry employers. The aim of the phone interviews is to explore and derive a deeper understanding of the processes involved in the

movement of seafarers from ships to landside jobs. Other objectives of the phone interview are to:

- Identify the reasons why seafarers leave jobs (or organisations);
- Ascertain the operational challenges common to the retention of ship officers onboard ships and;
- Understand the impact of the ship officer shortage on shipping industry employers.

Thus the primary goal of the data collected during the phone interviews is to answer the following secondary research questions:

- **SRQ2:** What are the major causes of the industry-wide shortage of ship officers?
- **SRQ3:** What are the measures being used by shipping industry employers to address the shortage of ship officers?

Hence this Chapter uses a qualitative approach to explain the factors identified in Chapter 5 by the seafarers. Also, given that the data collected during the phone interview is significantly qualitative (over 99% is textual data), it is important that a qualitative data analysis technique and process is used to provide in-depth explanation of the phenomenon being studied (Carcary 2011). From a methodological perspective, this contributes to the literature on seafarers since past research (as explained in Chapter four) tended to offer a one-dimensional view of the human resource issues in the shipping industry.

6.2.1 Process of data analysis

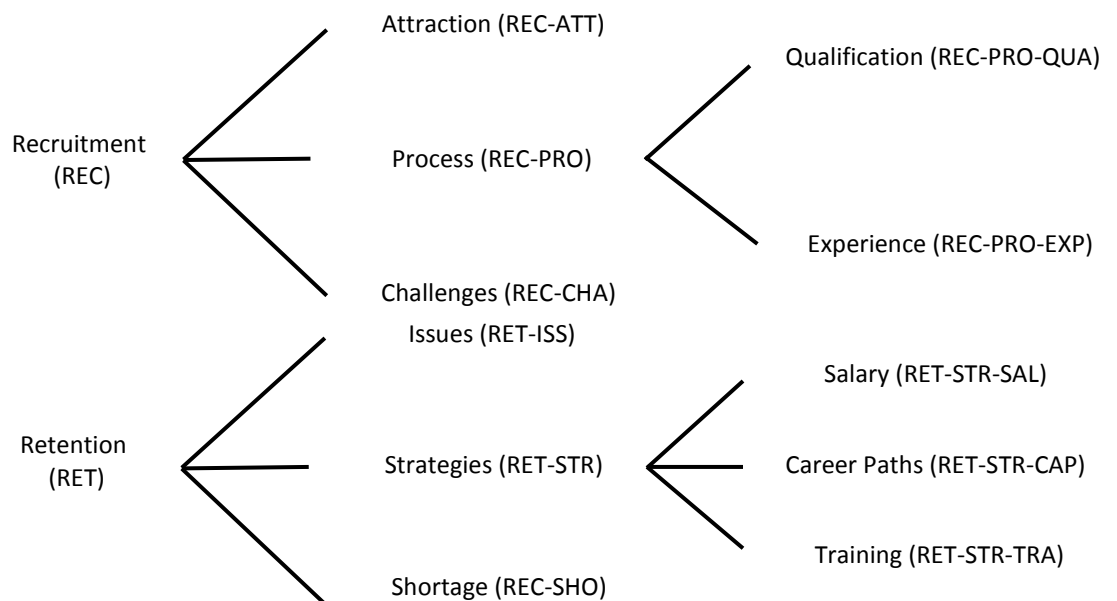
All the recorded phone interviews during the current study were transcribed verbatim and coded (Bazeley & Jackson 2013; Halcomb & Davidson 2006). As suggested by Zhang and Wildemuth (2009), this was done by defining the coding units and attaching them to relevant phrases, sentences and paragraphs from the interview transcripts. Transcription helped to generate familiarity with the data through the hearing, typing, taking of initial notes and to ensure accuracy (Braun & Clarke 2006; Schilling 2006). Thus, although there was an option of engaging the

services of a professional transcriber, which would have made the process faster and more convenient, it was advantageous for the researcher to personally transcribe in order to increase familiarity and interaction with the data prior to analysis (Halcomb & Davidson 2006). Despite the many computer-assisted qualitative data analysis software (CAQDAS) available for the coding of textual data (such as Nvivo, MAXQDA, ATLAS.ti and HyperResearch), none were used during the analysis for the current Chapter due to the small size of respondents (12 responses were received out of a sample size of 20 senior managers). Instead, a manual content analysis technique was used. This is because, CAQDAS are mostly suitable for large size textual data where respondent size is an average of 25 or more (Carcary 2011; Silverman 2013).

When CAQDAS is not used in analysing the interview transcript, Rothman et al. (2007) explains that it is important for the researcher to maintain rigour throughout the data analysis process by keeping a project journal. The project journal helps to keep track of coding rules and record critical data-related decisions during the analysis. Thus, prior to the coding of the 12 interview transcripts for the current study, a project journal was created in order to keep track of all activities as well as decisions made in relation to creating of nodes, coding rules, among others (Rothman et al. 2007). Given that the initial nodes for the categorisation of the 12 interview transcript data were pre-determined based on the literature review in Chapters two and three (Bussell & Forbes 2002; Hsieh & Shannon 2005), the five steps described in Rothman et al (2007) were adapted when analysing the interview transcript data for the current study. The adapted steps include: (1) initial exploration of the interview transcripts and taking of notes; (2) creation of nodes as patterns emerge within data; (3) classification of nodes; (4) coding of the data into the relevant nodes using cross-thematic and inductive techniques; and (5) writing the findings from an analysis of the coded data within the cluster of nodes. Figure 6.1 provides details on how creation and classifications of nodes were done.

Coding primarily involves the categorisation and labelling of collected data to ease analysis and eventually answer the research question/s (Grbich 2012) or solve the “intellectual puzzle”(Mason 2002, p.18). Basit (2003) posits that coding data forms a very important aspect of analysis during the execution of qualitative research. Coding is a widely used technique as it helps to make sense out of the raw data (Bazeley & Jackson 2013), even though it is not the only means to obtaining clarity from qualitative data in research (Saldaña 2012). The excerpts of responses gathered from the interview of senior shipping industry managers for the current study were coded using a combination of both inductive and deductive coding techniques (Fereday & Muir-Cochrane 2008; Joffe 2011; Thomas 2003a). The rationale for this is to ascertain the extent to which the answers given by the 12 senior managers correspond to the classifications given within the literature. Examples of the initial categories of nodes derived from the literature review and excerpts of the phone interview transcripts are shown in Figure 6.1.

Figure 6.1: Interview extracts with categories attached



Source: Author

After the creation of nodes, data from the response of interviewees was coded into their respective nodes. To prevent coding of data into wrong nodes; the researcher

recorded the coding rules for each node for reference purposes into the project journal. Coding rules were developed inductively based on the dataset from the interviews (Saldaña 2012; Stemler 2001).

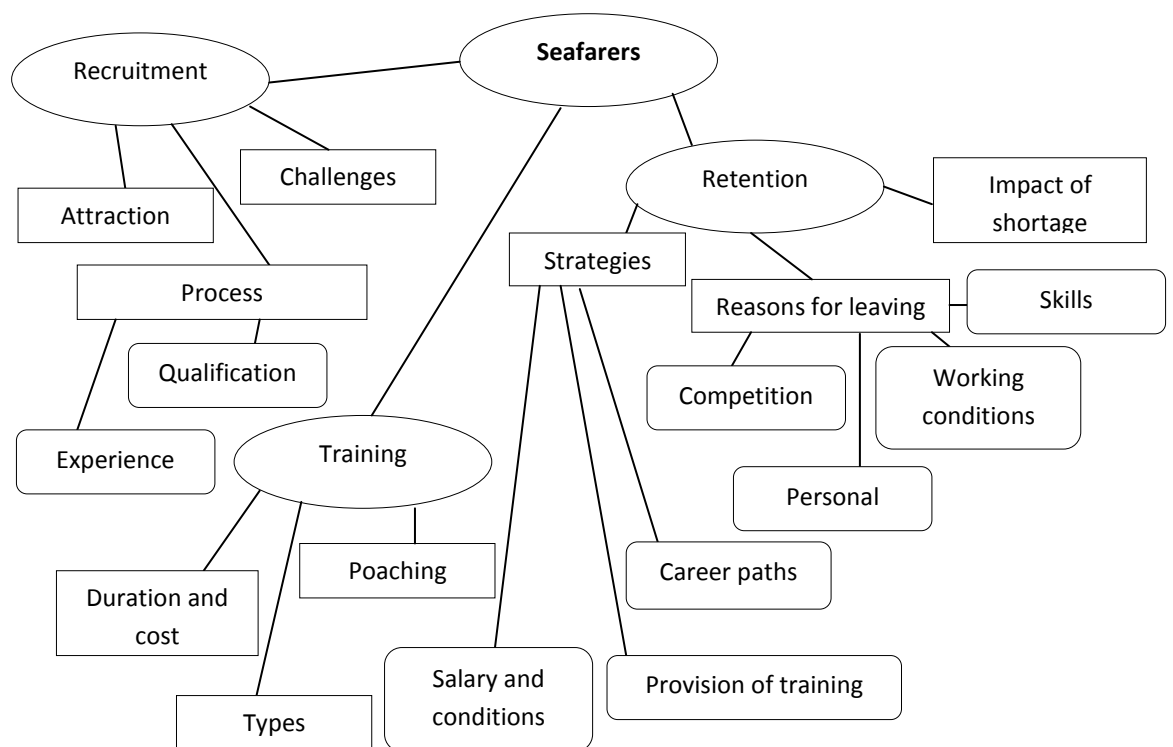
6.2.2 Data analysis technique

Content analysis was done after the coding of the interview transcripts. The synthesis of the coded textual data for the current study was done using content and thematic analysis technique (Braun & Clarke 2006; Joffe & Yardley 2004). Frequently used as a qualitative research technique, content analysis is also effective in reducing the size of textual data to simplify the work of social science researchers (Bos & Tarnai 1999; Elo & Kyngäs 2008; Kohlbacher 2006; Krippendorff 1980; Mayring 2004). It is also a powerful technique for assessing trends and patterns in interview transcripts (Stemler 2001). Decisions made during the content analysis for the interview transcripts relate to which data to analyse, how they should be defined, population, context, boundaries for the analysis and the outcome of inferences to be made (Kohlbacher 2006; Krippendorff 1980).

The steps described by Mayring (2004) for the inductive process of content analysis was used for the analysis of the textual data from the interview transcripts. As a result of conducting the content analysis (Elo & Kyngäs 2008), nine general themes, nine sub-themes and three major themes were identified. The three major themes relate to the recruitment, training and retention of seafarers. The next stage after identification of themes was development of the general themes using colour coding (Thomas & Harden 2008). This helped to distinctively differentiate the themes emerging within the data and also avoid coding interview extracts into the wrong nodes (Basit 2003). Sub-themes were then developed (see Figure 6.1) for coding the information. Also, all the themes and sub-themes were reviewed to check for relationships between themes and coded extracts. The themes were then labelled to generate clear definitions and names for the final analysis in relation to the research question and extant literature (Braun & Clarke 2006; Joffe & Yardley 2004). Once selected for inclusion based on the existence of a relationship with coded extracts, the themes were reviewed and variables of interest identified.

All identified variables were assessed for commonalities (Braun & Clarke 2006; Rothman et al. 2007; Thomas & Harden 2008) related to the movement of seafarers from ships to landside jobs. This helped to identify and understand the complex range of retention issues that must be addressed to prolong the number of years that seafarers spend at sea working onboard ships before moving to landside jobs. Consequently, the inductive content analysis technique enabled an effective identification of the retention strategies of Australian shipping industry employers; without compromising the original responses from the senior managers (Zhang & Wildemuth 2009, p. 314). Figure 6.2 shows the initial thematic map of the three major themes from the content analysis for this Chapter. The subsequent sections in this Chapter present the findings made after the telephone interview transcripts were subjected to content analysis.

Figure 6.2: Initial thematic map of the three key themes: Recruitment, retention and training



Source: Author

6.3 RESPONSE RATE AND DEMOGRAPHICS

The sample size of 20 senior managers of shipping industry employers used for the qualitative phase of the current study was taken from a population of 149 maritime

organisations in Australia. The selected sample represents the top 20 employers of seafarers in Australia based on the number of ships and employees. Further details on the criteria used for the sampling has been provided in *sub-section 4.4.2.1* in Chapter four of the current study. The participation of 12 senior managers from the sample size of 20 represents a response rate of 60 percent. Eight of the 12 participating senior managers work with companies who are among the top 10 employers of seafarers in Australia. Of the remaining 40 percent of senior managers who did not participate in the phone interview, 30 percent explained that it was due to commercial reasons and company policy on market (consumer) research. The remaining ten percent could not participate in the interview due to their busy schedules. Some of the managers for instance had to travel overseas for over a month for foreign assignments and could not be reached as the telephone used for the interview was not equipped with the capacity to make calls outside Australia. After one and half months of making contacts with the office of participants who had travelled overseas, no further contacts were made due to the lack of success. Waiting longer could have delayed the timely execution of the study. Also, the sample size could not be increased as the remaining companies in the population did not meet the criteria outlined for the sample (see sub-section 4.4.2.1 of Chapter four for full details of the criteria used).

In 12 previous qualitative studies done between the period of 1999 to 2009, Gurning (2011) found an average of 42 percent recorded as the response rate. Consequently, the 60 percent for the current study is quite favourable when compared to the average of 42 percent recorded in earlier studies. Additionally, the favourable response rate recorded for the current study provided an opportunity for an in-depth study of the retention strategies being used by shipping industry employers in Australia.

The 12 telephone interview participants (TIPs) were senior managers working with companies that employ seafarers either in the blue water or offshore sector. Table 6.1 illustrates the profile of the managers who took part in the phone interviews

and other details about their respective companies. Table 6.1 shows that the largest number of the telephone interview respondents was 5 (42%) technical superintendents. This is closely followed by 4 (33%) Chief Executive Officers (CEOs), 1 (8%) crewing manager and 2 (17%) training managers.

Table 6.1: Profile of telephone interview participants

| Category | No. of Employees | No. of participants | % |
|---|-----------------------------|---------------------|------------|
| Chief Executive Officer (CEO) | 1,980 seafarers | 4 | 33 |
| Other senior managers | | | |
| Technical superintendent | 2,120 seafarers | 5 | 42 |
| Crewing manager | 3000-4000 seafarers | 1 | 8 |
| Training manager | 490 seafarers and 18 cadets | 2 | 17 |
| Total | 8, 608 seafarers | 12 | 100 |
| Years of experience | | | |
| Slightly experienced (5 years or less) | | 1 | 8 |
| Moderately experienced (6-10 years) | | 3 | 25 |
| Highly experienced and seasoned (over 10 years) | | 8 | 67 |

Source: Author

The four CEOs and five technical superintendents had previously worked as seafarers before moving to shore and becoming managers. With regards to the management of seafarers, participants in these two categories have on average more than ten years of working experience. The advantage of these highly experienced participants is the richness of data and high quality of information they provided for this study (Lambert & Loiselle 2008; Schultze & Avital 2011). All the technical superintendents for instance were able to provide detailed insights into working conditions onboard ships from a seafarer's perspective (due to their past experience working onboard ships) and from another viewpoint as managers. On average, over two thirds of the 12 respondents had more than five years of seagoing experience and this suggests that the profile of respondents was appropriate as they were able to provide meaningful information for the identification and deeper understanding of the key seafarer retention strategies of Australian shipping industry employers.

In total, the CEOs and other senior managers interviewed are managing approximately 8,608 seafarers within both the blue and brown water sectors of the Australian shipping industry. The spectrum of the 12 companies highlights the following characteristics:

- Eight of the interview participants are working in companies who represent the top ten employers of seafarers in Australia with all being part of a parent company with a global presence.
- Three of the five companies in which the technical superintendents work are engaged in the oil tanker shipping trade (both blue water and brown water) and collectively employ more ship officers with oil/gas tanker experience than the remaining nine companies put together. They are also part of the top five operators of oil and gas tankers in the world.
- One of the 12 respondents is the largest employer of seafarers in Australia and operates all kinds of vessels from tankers, bulkers and anchor-hanging tugs.
- Two of the respondents are senior managers in companies who are the leading stakeholders of the Gorgon Project; which is one of the world's largest natural gas projects and the largest single resource development in Australia's history.

6.4 THE SHORTAGE OF SHIP OFFICERS AND ITS IMPACT

The primary research question of the current study aims to identify how shipping industry employers can improve the retention of ship officers. However, it is important to first consider the perception of employers on the officer shortage (including its impact) before identifying the strategies being used to improve retention. Establishing the specific areas of the ship officer shortage will help in a better appraisal of the suitability of strategies being used by employers. In questions C1-C3 of the telephone interview instrument (Appendix D), participants were asked to provide their viewpoint of the ship officer shortage and its impact on

their operations in particular and the shipping industry in general. The results are presented in this section.

6.4.1 The officer shortage - reasons

Generally, the 12 respondents regard the shortage of ship officers as an issue of major concern both within the Australian and international shipping industries. The key positions of shortage were identified as masters for specialised vessels such as dredgers and the various types of oil and gas tankers. Ship officers for oil and gas tankers are in limited supply due to the long years of specific experience and set of skills needed to operate the ships connected to their trade. Another important area of shortage identified by the respondents relates to Class 1 and chief engineers (TIP 01, 05, 07 and 11). For most of the respondents the concern about the shortage of officers is the negative repercussions this holds for their continued operation. Specifically, participants operating as major players within the oil and gas sector of the Australian shipping industry lamented about how the ship officer shortage affects their ability to complete certain projects on time (TIP 01, 02 and 08). Also, requirements from matrices connected to the Oil Companies International Marine Forum (OCIMF) and International Oil Tanker and Terminal Safety Guide (ISGOTT) [for oil and gas shipping companies] leads to the need to meet strict requirements for ship officers with certain type of experiences without which it becomes impossible to operate the ships. Comments from three chief executive officers (CEOs) and one senior manager gives an indication of the level of importance Australian shipping industry employers attach to the shortage of ship officers:

It [shortage] can be critical, especially experienced ship officers. In running tankers, we have to meet a certain matrices set up by the OCIMF... So if we lose even two mid-ranked officers from one ship, we can be very hard pressed to keep that ship within compliance for that vetting and chartering purpose... We are having instances where at the moment, there are a couple of vessels were struggling to have personnel.

-CEO

It is a concern to the whole industry when there is a shortage of willing, capable and well trained officers... So this is a big concern.... it is very difficult to find experienced officers.

-CEO

In Australia, it is a significant issue. I have seen cases where people are employing officers that they wouldn't normally reemploy because they've had previous issues with them and have been told that they wouldn't reemploy but they had to reemploy them to sort of get the right crewing.

-Senior manager

Yes it [shortage] is on deck engineers. We have a void space between chief engineers and 3rd engineers, so there are not many 2nd engineers.

-CEO

The comments from the respondents in the above quotes show a concurrence to the shortage of ship officers and also equally highlight the severity of the situation. Furthermore, eight of the respondents as highlighted in quotes below from two of the CEOs observed that the shortage is not merely confined to the Australian shipping industry but has an international presence:

In the offshore sector alone, the demand for a competent mariner is high... Now the global shortage is high; and that's why it's hard to get competent ones.

-CEO

Yes and well the talk in the industry is that there is a shortage of ship officers nationally but also internationally and we've had conferences on this. We also have our own model developed and are confident that it's a fairly good representation of the industry and that model also tells us that there is a shortage of ship officers in the industry for this year, the next year and it goes on like that. So from our own research, we know that there is a shortage of ship officers.

-CEO

The 12 interview participants outlined several reasons they consider as responsible either directly or indirectly for the shortage of ship officers. Table 6.2 provides a summary of what Australian shipping industry employers perceive as the reasons for the shortage of ship officers alongside findings from the literature. After a content analysis of the answers provided by participants to questions C1 and C2 (Appendix D), the factors ascribed as probable causes of the ship officer shortage can be categorised as relating to the retention, training and recruitment of seafarers. However, comments mostly covered issues surrounding the attrition of ship officers and the difficulty in retaining them. Issues connected to the retention of seafarers emerged as one of the key reasons for the shortage of ship officers in the Australian shipping industry (TIP 01, 02, 07, 09, 11, 08 and 04). The comments from participants (shown in row two of Table 6.2) in relation to retention issues primarily highlights the difficulties that Australian shipping industry employers are facing with regards to keeping their seafarers, especially the ship officers who are regarded in this case as highly skilled staff.

Table 6.2: Reasons for the shortage of ship officers

| REASONS | EMPLOYERS | LITERATURE |
|--|-----------|------------|
| Retention issues | | |
| Staying fewer years after training | ✓ | – |
| Personal reasons | ✓ | ✓ |
| Younger generation ship officers moving to landside jobs | ✓ | ✓ |
| Lack of promotion opportunities as masters overstay at posts | ✓ | – |
| Relationship and family commitments | ✓ | ✓ |
| Changing life at sea | ✓ | ✓ |
| Industry limitations and disposition | | |
| Fewer ships due to a declining industry | ✓ | – |
| Lengthy recertification process for returnees | ✓ | – |
| Lack of opportunities for training and career development | | |
| Absence of particular ship types to gain a specific experience | ✓ | – |
| Less people joining the industry due to limited chances for training | ✓ | – |
| Lack of funding for training | ✓ | ✓ |
| Limited commitment from employers to extra training | ✓ | ✓ |
| Competition from other sectors | | |
| Competition from oil & gas and short sea shipping | ✓ | – |
| Senior officers poached for offshore and port side jobs | ✓ | ✓ |

Source: Author

Generally, the results showed that it is becoming difficult for employers to retain seafarers at sea as many of them are not willing to stay and continue working at sea

for longer years (TIP 09). For instance, cadets leave the ships to landside jobs within two to three years after their cadetship training whereas officers in the junior and senior ranks leave after they might have gained enough experience to pursue landside jobs (TIP 01 and 09). This result is further confirmation of the literature where new generation ship officers are reported as spending less than ten years at sea (Ljung 2010; Shiptalk 2008). Thus there appears to be a certain stage in the career of seafarers where a convergence of termination factors (as shown in Figure 3.3) eventually lead to their movement to landside jobs. The progression of ship officers to landside jobs in itself is seen by Australian shipping industry employers as a natural process; however the problem lies within the early exiting (TIP 01 and 04). Additionally, decisions connected to personal issues, career goals and family also undermine the efforts of Australian shipping industry employers to keep their ship officers onboard (TIP 02, 09 and 04). In the vein of personal and career issues, a typical description of an officer that may be difficult to retain was given by one of the respondents:

...and you get someone about 31-32 years old and probably just got married and about to have their first child and they wish to be a little bit closer to home... that is where you start to get a little bit of difficulty in holding people.

-TIP 04

Another reason ascribed to the shortage of ship officers by participants is the lack of opportunities for training and career development (TIP 01, 02, 11, 03, 06 and 09). Training is regarded by seafarers as a very important aspect of their career (Tarver 2001); as it helps them to remain abreast with new skills and maintain up-to-date tickets to improve their employability. Consequently, the absence of genuine opportunities to be trained precipitates a bleak career prospect for the seafarer and under such circumstances; they are compelled to move to other sectors (such as oil and gas) within the shipping industry or leave the entire shipping industry altogether to pursue different careers. In other words, the shortage of ship officers becomes possible when seafarers are not adequately trained to prepare them for promotions to higher ranks (TIP 11). Also, the shortage of ship officers may be

compounded as many shipping industry employers are not actively engaged in the training of seafarers due to the high costs and the lack of corporate drive (TIP 03, 06 and 09). As seen in remarks from two of the participants, the high costs and long period involved in training ship officers is quite prohibitive and they therefore advocate the need for government funding:

The key reason for the shortage of officers could possibly be the amount of time that is required to train officers and the costs of training... it is very expensive for a company to put somebody through the training and most companies can't probably actually afford to do that or they are unwilling to invest the time because if someone is in training being at college, it is the cost paid at college and the cost paid in that person's wages. I think government assistance is important here.

-TIP 10

If you look at some other sectors, the government funds their training but we [shipping industry] don't have any of that kind of luxury. I certainly think that government has completely got the system wrong for training of engineers and officers in Australia. I think there needs to be change; there need to be some support for funding.

-TIP 03

According to the results from the telephone interviews, the shortage of ship officers in Australia is also caused by the competition for talent between the blue water division and other sectors of the Australian shipping industry. This inter-sectorial competition is very much prevalent between the blue water sector and the offshore oil and gas division (TIP 01, 06 and 11). The offshore oil and gas division exerts so much pull on skilled and experienced ship officers within the blue water sector due to the very high salaries offered by employers in this sector of the Australian shipping industry. Given that high salaries is one of the key motivators of Australian ship officers, chief engineers and other category of officers in high demand (as shown in Chapter five of the current study); they eventually get poached from their organisations in the blue water sector. This creates a shortage of ship officers for

the blue water sector of the Australian shipping industry. Apart from the high salaries, the shorter swings offered in the offshore oil and gas industry is also a factor that makes poaching officers from the blue water sector easier (TIP 04). Often there is competition from the port and pilotage sectors of the Australian shipping industry for ship officers. A comment from one of the senior managers captures the nature of the competition for ship officers and sheds much light on the extent to which this is creating shortage in the blue water sector:

I guess one large reason is the attrition from the blue water or trading tankers to other areas of the industry; that poaching I was referring to earlier. We've lost a lot of experienced officers over the last couple of years to the oil and gas industry. A lot of officers, especially more senior officers progress a lot into pilotage...

-TIP 01

Thus the shortage of ship officers in the Australian shipping industry is mostly due to the difficulty employers experience with the retention of skilled talent. Cahoon, Caesar and Fei (2014) explain that a convergence of the reasons outline in Table 6.2 often leads to the exiting of officers. This makes effective retention a critical issue for shipping industry employers in Australia (especially the blue water sector) and highlights the need for better strategies to alleviate the officer shortage.

6.4.2 Impact of the officer shortage

Due to the financial and human resources implications, it is important to understand the extent to which the ship officer shortage impacts on employers and the shipping industry. Results from the interviews showed that the shortage of ship officers in the Australian shipping industry leads to the following constraints:

- Increase in the frequency of recruitment with the associated costs (due to the need to permanently or temporarily provide a relief personnel to fill in for departing officers) [TIP 02 and 01];
- Disruption of projects with massive knock-on effects [TIP 02];

-
- Ships are not efficiently operated as result and this leads to marine accidents and failure (when incompetent ship officers are hired). [TIP 09 and 10];
 - Stifles growth of the organisation as new businesses cannot be taken up quickly [TIP 01];
 - Salary hikes caused by shortage leads to increased cost of doing business and this slows down expansion of the blue water sector of the Australian shipping industry [TIP 02].

The results show there is a two-pronged impact created by the shortage of ship officers in the Australian shipping industry – at the organisational and industry level. Organisations face a lot of financial pressure with the shortage of qualified and experienced ship officers. First, they are unable to expand as quickly as they will want and this prevents them from taking up new projects leading to the forfeiture of enviable business opportunities. Secondly, with the departure of officers from a ship (due to a leave of absence, sabbatical or other personal reasons), organisations are compelled to find immediate replacements - an option which is traditionally expensive as 'relief officers' tend to demand more in terms of wages. Sometimes also, relief officers need to be brought from abroad and the process is quite expensive and cumbersome (TIP 02). Where organisations are unable to find replacements for departing officers in a timely fashion, an entire project suffers delay with the associated costs worth several millions of dollars per day (TIP 02 and 06). Some organisations resort to the employment of retired officers or people they may not want to engage under normal circumstances (TIP 06, 09, 11 and 12). Thus the financial damage organisations suffer as a result of the shortage of ship officers is on many fronts - wages, costs of delays and loss of business. With regards to the impact of ship officer shortage on organisations, comments from two of the participants highlight the key issues:

The client, the project, the owners, the ship operating company, everybody is affected by one single person who have to go home. If a master is sick or has personal issues and has to go home, there is nobody else to fill his boots and so the whole project can be left sitting idle for several days until a

replacement can be found... I mean if you've got a rig standing by and an anchor-hanging tug and you have a master who has to go home and the anchor-hanging tug cannot go out into the field to assist with the work of the rig, you are potentially costing up to a million dollar a day plus delay. This is just for one rig and that's just a small example. If you consider a more larger project like the Gorgon Project, you could have costs and cause delays worth several million dollars a day; just because of one person not being able to go out and do his job.

-TIP 02

It constraints our ability to quickly uptake new business; so there may be opportunities that exist and we look at it and go like we cannot do it. How can we man [operate] it [vessel]? So we have to basically look elsewhere or disregard that opportunity and take up rather short term projects. ...it obviously increases our turnover as we start taking the casuals and relievers on. It is straight away an extra 20 percent they are being paid. So that adds to our overall percentage of the overhead... So the overhead cost goes up considerably. ...it is very hard for us to compete internationally as the cost of seafarers is quite expensive; and as soon as you start adding those overheads on top, it is uneconomical. It makes it non-viable and that hurts us a lot.

-TIP 01

Thus the ship officer shortage heightens the demand for high wages by seafaring labour from shipping companies. This increase in demands for salary increases among Australian seafarers each year has many ramifications for all stakeholders. These annual and sometimes frequent salary increment demands occasioned through complicated Enterprise Bargaining Agreements (EBAs) places Australian seafarers in a position where they are eventually priced out of the market. Consequently, shipping industry employers in Australia are compelled to stretch their wage budgets in order to retain skilled officers they might not want to lose; especially in the engineering department of ships. With limited funds at their

disposal, employers may not have the much needed financial clout towards expansion of their fleet and meeting contractual obligations. The entire shipping industry in Australia suffers as a result of these chain reactions. Also, the huge wage bills have led to a shrinking of the shipping industry in Australia as the ships are becoming fewer (Ghosh & Bowles 2013; Lewarn 2009). Thus the ship officer shortage stifles the growth of the Australian shipping industry in general. This is effectively captured in the comments of one of the CEOs working with a company owning the largest oil tanker fleet in Australia:

It has probably slowed the expansion. The growth of the industry here in Australia in my mind has very much been slowed by the lack of officers and the costs of training people here and the costs of running business here in general...

-TIP 02

This suggests that but for the high costs of running business in Australia; the local shipping industry would have been a lot much bigger with more projects and other services in related industries such as ship design, building and repair. The negative impact of the shortage of ship officers on organisations and the Australian shipping industry suggests the need for better strategies to address the problem. From the recruitment side, efforts are needed at both the organisational and industry level. Organisations need to be proactive in terms of marketing to attract more people for training to become ship officers. More elaborate training plans will mean that organisations must have an annual plan where they go to schools to recruit and sponsor people. Also, adverts are needed throughout the year encouraging professionals with the licence or people without the licence but highly experienced to apply for further training. Organisations are not having any trouble in putting people on and getting them started but they are not keeping them (TIP 09, 03, 07 and 11). The problem is in the recruiting process of not getting the right people. The fact that organisations are not getting the right people means that it becomes difficult for them to stay. Many Australian shipping industry employers do not have

industry-focused recruitment strategies and this leads to choosing and targeting the wrong people. They need to go right back to the start – the recruitment process.

6.5 ATTRACTION, RECRUITMENT AND TRAINING OF SEAFARERS

This section explores the perception of respondents (senior managers) on the attraction and training of seafarers in Australia. The results presented here constitute the responses given to certain questions (A3, A4, A5, A9, A10, A11 and B1-B6) in sections A and B of the telephone interview instrument (see Appendix D). All the questions used to obtain the textual data for this section were open-ended. The questions sought to understand the methods used by Australian shipping industry employers to attract seafarers, the associated challenges and measures being used to address the challenges. Additionally, the questions covered the types of training given to seafarers and their expectations at the point of entry into the industry. As indicated earlier in section 6.2 of the current Chapter, the responses to the questions used to collect data for this section were subjected to thematic and content analysis (Hsieh & Shannon 2005; Weber 1990).

6.5.1 Attraction of seafarers

The responses from the 12 senior managers suggest that Australian shipping industry employers regard themselves as being successful in attracting seafarers to work onboard their ships (TIP 1-12). This apparent success in attracting people into the Australian shipping industry to work as seafarers is attributed by respondents to factors such as: the relatively high salaries offered to Australian seafarers compared to other parts of the world (TIP01, TIP03), excellent working conditions onboard the ships, good industrial working agreements, short length of the voyages in the case of coastal shipping and shorter swings (TIP04, TIP 06-09 and TIP11). All the 12 respondents however regard high salaries and good working conditions as the two leading reasons for the successful attraction of people to work onboard their ships.

Two of the interview participants work as senior managers for short sea shipping companies in Australia (mostly operating between Tasmanian ports and mainland Australia and along the coast of Western Australia). An additional issue emerged in

their response to the question: *What are the most important factors that attract seafarers to your organisation?* Apart from salary and good working conditions (which is also cited by the remaining ten senior managers), they explained that the short length of the voyages in their business is the major factor underpinning their ability to attract seafarers to work with them. In this regard, a comment from one of the two senior managers is quite notable:

The short range trips of the vessels and the locality usually in Melbourne and Devonport is an attraction to people.

-TIP 04

In the offshore sector of the Australian shipping industry, the ability of companies to attract seafarers is reliant on the high salaries offered by employers in this sector. Although salary levels are quite high within the entire Australian shipping industry, the pay packages offered in the offshore sector are relatively higher compared to other areas such as the blue water, port sector and dredging (Fastream 2012). The four CEOs (shown in Table 6.1) explained that due to the higher salary scales synonymous with the Australian offshore sector, employers in this sector often use money as the bait to poach (attract) seafarers with a specific skill set to work for them (TIP01, TIP03, TIP06 and TIP11). Additionally, the ability of companies in this sector to continue securing more contracts helps to position their brand as an employer of choice (Kokoszko & Cahoon 2007; Thai & Latta 2010) to attract skilled seafarers such as engineers (there are few qualified ones in the market) and officers who are in short supply. As explained by one of the CEOs who manage seafarers in the offshore sector:

It is probably several factors... working on a project that is well managed, having good boats, offering a comfortable environment onboard and also offering interesting work for the people onboard.

-CEO

The apparent over reliance on high salaries to attract people into seafaring suggests that Australian shipping industry employers would not be able to hold onto it as a differentiation strategy.

6.5.1.1 Attraction strategies of employers

One of the key objectives of this Chapter is to understand the strategies and methods used by Australian shipping industry employers to attract people into the industry. It is important to create a distinction between the strategies being used to attract seafarers by employers and the seafarer recruitment process itself. This section focuses on the former. Word of mouth was stressed by 50% of the respondents as the most instrumental method they use to attract seafarers (TIP02, TIP04, TIP08, TIP10, TIP11 and TIP12). The success of this method of attraction is based on the small size of the Australian industry and a good level of interaction among local seafarers which is supported by the strong union network (Telford 2014). Due to the conviction respondents have about the effectiveness of word of mouth in attracting seafarers, many of them have made the decision not to undertake industrial campaigns for the attraction of seafarers (TIP04, TIP08, TIP10 and TIP11). Other methods given by the 12 respondents for the attraction of seafarers to work onboard their ships are: advertisement, provision of training, use of company image and internet tools.

The content analysis showed that the strategies used by Australian shipping industry employers to attract seafarers are more industry-focused. However, responses from two of the CEOs highlighted organisation-centred strategies as well. For instance, whereas strategies such as word of mouth, advertisement and the use of competitive pay packages are common practices adopted by all companies within the industry; others such as the reliance on websites, reputation and provision of training are selectively used by organisations to attract highly skilled ship officers onto their ships. Among the organisation-based attraction strategies, the use of reputation and image is prominent. As remarked by one of the CEOs working with the largest employer of seafarers in Australia:

Everybody wants to work with us because of the reputation, the name and the long term contracts... So we use it to our advantage. Ours is a global company and everybody wants to work with a multinational and we spend a lot of money on reputation.

-CEO

Three senior managers and two CEOs explained that the effectiveness of using image and reputation to attract people onto their ships lies in the innate ambition of practising and potential seafarers seeking to work for reputable shipping industry employers. Consequently, seafarers who want to work with multinational shipping companies invest in the acquisition of requisite skills and experience to gain advantage over their colleagues. Thus, some seafarers are attracted to work with highly reputable shipping companies since they regard it as a matter of prestige. This is reflected in a statement from one of the senior managers:

There is what they [seafarers] call the five sisters – Shell, Mobil, Exxon, BP, etc. These are the big companies that many seafarers want to work for and the drive is all about money because these multinationals actually pay well, take care of their staff, have a retirement plan for the staff, motivates them in terms of training and it is a reputation thing that you actually work for such big organisations.

-Senior manager

In general, it is a combination of the strategies given by respondents that persuades people to be attracted to the seafaring career. This suggests that shipping industry employers need to combine several of the strategies rather than rely on only one in order to be successful. As explained by two of the senior managers:

It is probably several factors working together and also offering interesting work for the people onboard so that they are not just doing boring stuff but they are doing some interesting stuff and a bit of training; so it is many different factors all wrapped up together.

-TIP 02

I think its lifestyle, you know the wages, the time-on and time-off. There's a lot of things that go with it so it's not simply one thing; I think it would be a combination of things really that would attract people.

-TIP 08

6.5.1.2 Issues and challenges

This section discusses the issues and challenges surrounding the attraction of seafarers in the Australian shipping industry. The section is based on answers to questions B3 – B6 of the telephone interview instrument (Appendix D). The questions are:

- QN B3: Has your organisation been facing any challenges with regards to attracting seafarers to work onboard your ships?
- QN B4: If there are any challenges, how are they being addressed?
- QN B5: What are the most important factors that attract seafarers to your organisation?
- QN B6: Are there any areas you believe need to be improved to attract seafarers to your organisation?

Understanding the challenges confronting the effective attraction of seafarers is necessary as it will lead to the improvement in the current methods and strategies adopted from both an organisational and industry perspective. Although half of the 12 respondents were of the view that attraction of seafarers is not a major problem to their respective organisations, three of the senior managers did admit the existence of various challenges (TIP01, TIP03 and TIP12). Thus, it appears the perception that attracting seafarers is not a key issue among Australian shipping industry employers may be erroneous. Also, using indexes such as the number of applications received and better retention rates to determine the level of success in seafarer attraction may not be providing a true reflection of the real issues in this regard.

Regardless of the perception senior managers have about the attraction of seafarers, varying degrees of challenges were identified as confronting the effective

attraction of seafarers by Australian shipping industry employers. Inability to attract people with the right set of skills and experience was identified by senior managers as the most common challenge they face when searching for employees. Specifically, more than half of the 12 respondents reported that it is difficult to attract qualified deck engineers and even trainee engineers.

The difficulty in attracting deck engineers is partly due to the limited training from employers, lack of entrants willing to be trained as engineers, lapses in existing maritime labour policies in Australia and the lack of ships for training of seafarers (TIP06, TIP08 and TIP12). In the case of shipping companies in the blue water sector, an additional factor that makes it difficult for them to attract trainee and skilled engineers is the stern competition they face from rivals in the offshore and port sectors of the shipping industry in Australia. The impact of these factors on the attraction of trainee and qualified engineers is confirmed in the statements of two of the CEOs:

...but generally, applicants for engineers have been very low in the industry even when I started 25 years ago. They see the engineer role as a sort of 'dirty work'.

-TIP 04

...with the engineers, it can be quite difficult to attract and keep them because a lot of them get quite good opportunities within the oil and gas offshore industry and also in the tug boat industry. So we've got quite a bit of competition there.

-TIP 01

From the responses, inter-sectorial competition within the Australian shipping industry appears to be an important issue. Notably, there has been increased competition between the blue water and offshore sectors for skilled seafarers within the officer ranks especially among engineers. This phenomenon has affected shipping companies whose nature of business specifically places demand on them to attract marine engineers (due to their operational and safety skills).

Apart from the difficulty in attracting skilled seafarers such as engineers and the apparent inter-sectorial competition, lapses within the maritime policy framework in Australia has also been identified by all the four CEOs and six of the other senior managers as a major issue. Policy bottlenecks present one of the key challenges for Australian shipping industry employers with regards to effective attraction of the required ship operating talent. Particularly, the lack of recognition for State (Provincial) tickets under Federal marine frameworks makes it difficult for competent engineers with State tickets to work within the Australian shipping industry. This limits the size of the pool of qualified officers and engineers available to employers to attract. The policy lapses and its impact on the qualification of mariners and employers in general, have been effectively captured in these statements from two of the CEOs:

There have been so many good engineers in Australia that can't work in our vessels because they have State tickets... Recognising the State qualifications within Australia have been a real problem especially within engineering ranks.

-CEO

One of the major policy issues we have is in dredging. Now internationally, there are no restrictions on sea time on any dredging equipment but in Australia, there are restrictions ... The ship handling experiences required for dredging far outweigh anything else yet sea time is never being recognised. All our vessels that are working internationally don't have such restrictions and can't believe there are such restrictions here in Australia.

-CEO

Harmonisation of State and Federal marine frameworks is needed to address the difficulty faced by potential seafarers holding licences issued by their respective states. Failure to address these policy bottlenecks within the Australian shipping industry will exacerbate cadet attrition as the seafaring career becomes less attractive as a result. Specifically, the lack of recognition of State licences/tickets constitutes a formidable entry barrier to potential seafarers.

6.5.1.3 Improving attraction: Remedies

Whereas Australian shipping industry employers may regard themselves as very successful in attracting seafarers to work onboard their ships, discussions from the immediate previous section probably suggests otherwise. Table 6.3 provides a summary of the key attraction issues identified by the senior managers, current strategies and remedies.

Table 6.3: Issues for seafarer attraction and remedies

| PARTICIPANTS AND ISSUES | CURRENTS STRATEGIES | REMEDIES |
|--|---|--|
| TIP 04, 06, 03 and 01: Difficult to attract people with the right mix of skills and experience | Word of mouth | Bear the cost of training seafarers and provide training berths |
| TIP 09 06 and 03: Lapses in existing maritime labour policies | Advertisement through the media and internet | Continuously review existing attraction methods |
| TIP 11, 05 and 04: Reduced entry of engineer trainees | Provision of training | Devise measures to differentiate due to industry competition |
| TIP 09, 04, 03 and 12: Limited training from employers | Using competitive pay packages | Need to be proactive and be clear on category of seafarer to attract |
| TIP 09, 11and 03: Strong inter-sectorial competition for skilled seafarers | Investing into company image/reputation | Refine the simplistic attraction methods |
| TIP 09 06 and 03: Limited knowledge of recruits on career in shipping | No substantial remedy to being used currently | Provide realistic job previews to new industry entrants |
| TIP 09 06 and 03: Lack of recognition for state tickets | No substantial remedy to being used currently | Refocus the shipping policies to reflect the growing changes |

Source: Author

The inability to attract skilled and experienced seafarers coupled with the other challenges associated with persuading people to work as seafarers suggests the need for shipping industry employers to refocus their strategies to help improve their chances of recruiting the right people. Additionally, using simplistic attraction methods such as word of mouth is probably not yielding the much needed results as it makes it difficult to land the right kind of people. This suggests that current attraction methods will need to be refined to be abreast with modern times; and aptly adjust to the dynamic nature of human resource issues in the Australian shipping industry. Not getting the right people consequently leads to high turnover rates as people whose career objectives do not fit into the organisational culture depart within short periods after joining (Hills 2009).

To address the challenges confronting the effective attraction of seafarers, Australian shipping industry employers are using a range of strategies to improve the chances of getting the right kind of people to work onboard their ships. One of the notable strategies is to undertake a continuous review of existing methods used in attracting seafarers. This is very important to ensure that the organisation is not lagging behind in terms of the incessant changes within the seafaring labour market. Thus reviewing the attraction methods will help organisations avoid the syndrome of getting trapped by the simplistic methods (that were probably used over three decades ago) which may not yield the desired outcome in terms of attracting the right kind of people. The need for a review and constant updating of existing seafarer attraction methods is shared by 85% of the 12 respondents. With a constant revision and updating of existing attraction strategies, employers in the blue water sector of the Australian shipping industry may be able to differentiate themselves from competitors in other sectors.

Given that the shipping industry is highly reactive in nature (Shantanu 2010), organisations will need to adopt a proactive attitude in order to constantly review the methods they are using to attract seafarers. Being proactive will require shipping industry employers in Australia to address issues that undermine their ability to attract seafarers. Another issue critically undermining the ability of organisations to attract potential seafarers is the high costs of education and lack of training berths which mostly deters industry entrants from taking up a seafaring career (Ghosh & Bowles 2013). To address this challenge, it is important that shipping companies and other industry employers use incentives such as bearing the costs of training and provision of training berths. Thus, there is a need for employers to offer career packages where they can bear the costs of training as this has proven to be successful in Scandinavian Europe (Zaar & Hammarstedt 2012). This is summed up in the comments of one senior manager and one CEO:

...the key thing is that we offer a 100% fully sponsored position and it costs nothing for them to be trained as we guarantee vessel placement and qualification; so it is quite an attraction.

-Senior manager

Yeah, they should do more of training cadets. There is a difference between training of cadets and giving cadets cadetship. The first stage is to train them and then after school give them the opportunity to learn (cadetship); and then after the cadetship give them opportunity of an employment onboard your vessel and then for them to build their career.

-CEO

Thus it appears the effectiveness of any remedy for the attraction of seafarers will be dependent on the category of seafarers the employer desires to attract. For instance, any approach that promises to cover the costs of relevant training may be more appealing to trainee cadets and junior officers who still have a lot more training to do before becoming senior officers.

Other aspects of the reasons why attraction of seafarers is not quite effective among Australian shipping industry employers relates to the limited knowledge that people [both the public and potential employees (both entrants and experienced seafarers)] have about the seafaring career. Improving attraction in this regard demands a proper communications structure within which the public and employees can be adequately informed. It will involve campaigns aimed at explaining the lifestyle at sea to industry entrants. This can be done through strategic advertising in trade and union journals, the internet and national career campaigns. Also, realistic job previews (RJPs) need to be provided to new shipping industry entrants to furnish them with relevant details on both the positive and negative aspects of the job. Providing RJPs to industry entrants may help alleviate the high rate of psychological breach issues prevalent among cadets. The three months sea time or 'Christmas trip' which forms part of seafarer training in Australia is communicated to cadets from the onset. This could be regarded as a sort of RJPs for seafarers.

Sometimes, dexterity is needed by employers to effectively communicate details about the seafaring career especially to young people in order to persuade them to become seafarers. A statement from one of the participants whose organisations specialises in maritime training shows the need to intelligently communicate the seafaring career to young people to attract them:

...we find out that about 10% of our applicants decide that they don't want to do it once we give them real information about the job... this is when we tell them that in order to be trained to be a seafarer, it must take about 18 months on a 400 dollars allowance per week... so the wage of trainees is a huge deterrent for a lot of people. When they find out that during training they will be at sea for three months of the time, a lot of people say that it will be too long a time for them to be away.

-TIP 10

Given the inability to properly describe what a seafaring career entails, some industry employers allow potential employees (new industry entrants) to undertake a probationary one or two weeks trial voyage to ensure that they are comfortable with working environment and conditions before the signing of an employment contract. As remarked by one of the CEOs:

Generally for new industry entrants we send them on a one or two weeks trial voyage (called the Christmas trips) to ensure they are happy at sea as well as being suitable and then quite often, people are employed on a probationary period until full employment is accepted. So there is a relief or probationary period until they are fully accepted into the system...

-TIP 01

Thus a great deal of effort and skill is needed to effectively communicate the intricacies of the seafaring career to new entrants to avoid losing them. Another aspect of the communication needed to improve attraction of potential seafarers has to do with addressing the negativity that is at times associated with the seafaring career. Thus employers and other industry stakeholders need to address

the negative perceptions that the general public and employees have about the profession of seafaring. As indicated by one of the senior managers:

I think with the unions, sometimes there's a lot of negativity based around the industry. The fact that seafarers are on a fairly decent wage and these unions are doing the industry down – saying that the oil and gas companies are robbing people blind, those who are working for them; that's not good.

-TIP 08

Thus, whereas shipping industry employers have invested in improving their image and reputation at the organisational level, a similar attitude is yet to be adopted at the industry level. From an industry perspective, issues that negatively impact the image of the seafaring career must be identified and appropriately addressed through a concerted effort of industry employers and other stakeholders. Additionally, communication strategies introduced to improve attraction and create a positive perception about the seafaring career should also be directed specifically at the younger generation since capturing people while they are young is a smarter approach (McLaughlin 2012).

One of the areas that need to be addressed to improve attraction does not directly relate to employers. This primarily has to do with government policies that hinder the effective attraction of seafarers by employers. As specifically indicated by respondents, policies relating to tax rates and the employment of foreigners as seafarers in Australia needs to be refocused to reflect the challenges that Australian shipping industry employers are facing with regards to getting the right mix of people to work onboard their ships. As evidenced in a comment from one of the senior managers:

I am sure the whole legislation needs to change with the ability to bring seafarers from anywhere in the world on 457 visas to man the vessels properly... I think they need to relax the legislations and the laws on bringing seafarers into the country because at the moment the cost of bringing

seafarers or employing seafarers locally is so high and damaging the whole industry; it will benefit if they open up the laws a bit.

-TIP 02

Apart from the need to relax immigration policies on 457 visas for foreign seafarers, the visa conditions may also need to be revised to reflect the sort of protections Australian workers are entitled to. Also, the increasing financial burden imposed by the hiring of local seafarers provokes the need for improvement in existing maritime policies to streamline the cumbersome processes associated with the employment of foreign seafarers in Australia. Another area of policy improvement relates to the need to address bottlenecks associated with serving time as it makes it difficult for people to take up seafaring positions with time gained elsewhere on similar vessels. Consequently, in relation to the shortage of deck engineers, there are many engineers available that could be utilised within the shipping industry in Australia but they are not, due to bad policies on serving time.

Thus, money, working conditions and image play an important role in attracting people to work as seafarers in the Australian shipping industry. While future attraction strategies of employers may have to focus on these areas, the importance of addressing policies that hinder effective recruitment of seafarers cannot be overlooked. With the shortage of marine engineers, policies that hinder the entry of engineers and serving time bottlenecks must be addressed accordingly.

6.5.2 Expectations of seafarers

In this section the perspective of Australian shipping industry employers on what constitutes the expectations of the seafarers they employ is presented. A summary of the career expectations of Australian seafarers from the perspective of employers is shown in Table 6.4 after a content analysis of the coded interview transcripts. The content analysis results shown in Table 6.4 corroborate the extant literature on seafarer attraction and expectations. The desire to earn a relatively high salary with plenty of time off and genuine opportunities for career

advancement emerged once again as the key career expectations of Australian seafarers (see row 2 and 4 of Table 6.4).

Table 6.4: Viewpoints of employers on the career expectations of Australian seafarers

| Telephone interview participant code | Career expectations |
|--|--|
| TIP 02, 03, 04, 05, 06, 08, 09, 10, 12 | Earn a relatively high salary with good working conditions such as 1:1 work to leave ratio, long term employment contracts, etc. |
| TIP 01, 06 | Work with a highly reputable provider of marine and shipping service in the industry. |
| TIP 01, 03, 09, 11, 04, 05 | To be employed in a job that has genuine opportunities for career progression with multiple paths to progression such as becoming a master and moving into shore positions in pilotage and management |
| TIP 05, 08, 10, 12 | Work with an employer willing to provide training towards licensing and certification (qualification) and provide safety equipment, etc. |
| TIP 08, 11, 04 | Work with an employer with people friendly policies such as indigenous employment schemes, female-focused policies and equal opportunity schemes where racial discrimination is absent. |
| TIP 09, 03, 04, 11 | Work with an organisation with family-friendly policies to alleviate the impact of long term spent away from home. Adequate compensation time spent away from home; and more opportunities to spend less time away from family (For example, Shorter swings) |

Source: Author

Nine out of the 12 senior managers gave the desire to earn high salary as the most important expectation among their seafarers. This is followed closely by the desire to advance in career where six of the respondents made relevant comments on its importance. With regards to career advancement, seafarers expect to work with employers who are equally willing to pay for the costs of their training when it is done by a third party (TIP 05, 08, 10, 12). When compared to the findings made for ship officers in Chapter five, it is evident that both shipping industry employers and Australian seafarers share the same view. High salaries and good working conditions are the two most common expectations identified for both groups.

6.5.3 Recruitment of seafarers

This section focuses on the process and criteria used for the recruitment of seafarers among Australian shipping industry employers. It also discusses the issue of recruiting women (considered a minority group in the shipping industry) into the seafaring labour force as this will help to highlight the bias among certain shipping industry employers with regards to the employment of women seafarers. Finally, the section outlines some of the challenges confronting effective seafarer

recruitment from the perspective of shipping industry employers. The discussion here on recruitment concerns the processes used by shipping industry employers to identify and select potential seafarers after attracting them. The results in this section constitute answers given to questions A3-A5 of the telephone interview instrument:

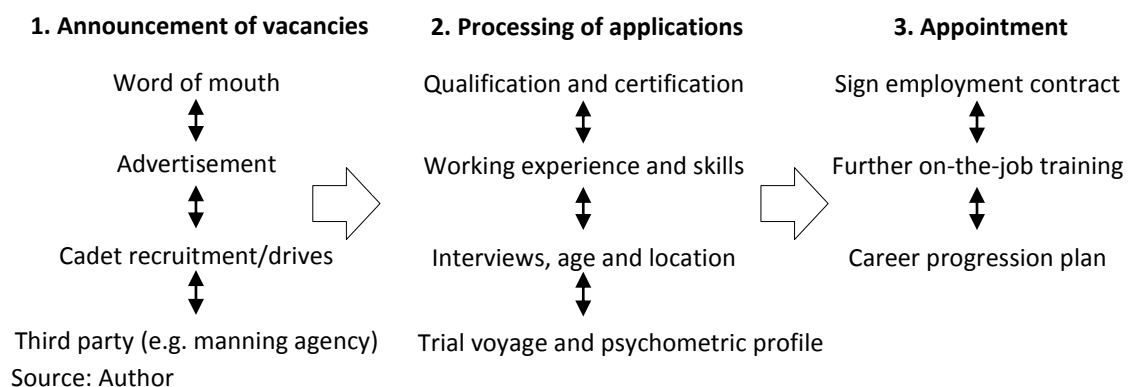
- A3: What processes are used to recruit your seafarers?
- A4: How often is the recruitment done and how many seafarers do you recruit each time?
- A5: What criteria does your organisation use to employ seafarers?

Proper identification of the processes and challenges of seafarer recruitment in Australia could help industry employers introduce more effective methods for a constant supply of seafarers.

6.5.3.1 Process and criteria for recruiting seafarers

Essentially, the seafarer recruitment methods reported in the literature (see for example, Amante 2004; Zhao & Amante 2005) as used by employers in the international shipping industry are very similar to what pertains to the Australian seafaring labour market. After undertaking a content analysis (as described in section 6.2.1) of the answers given to the aforementioned questions, the process and criteria effectively used by Australian shipping industry employers to recruit seafarers is shown in Figure 6.3.

Figure 6.3: Recruiting seafarers – Process and criteria



The literature only provides a general view of the recruitment types but no specific information is given on the process of recruiting seafarers. In the Australian shipping industry, employers use either direct or indirect methods to recruit their seafarers (TIP 01, 03, 04, 09, 10, 11 and 12). The direct method is mostly used for the recruitment of seafarers within the lower ranks: deck and engine cadets, integrated ratings and junior officers (TIP 01, 03, 04). Senior officers and seafarers with specialised skills are recruited by some employers using the services of a manning agency or other third party specialist recruitment agencies (TIP 02). However, content analysis of the answers given to question A3 of the telephone interview instrument showed that 11 out of the 12 respondents rely on the direct recruitment method to source for their seafarers (TIP 01 and 03-12). This contradicts the findings in the literature (see section 2.3.1.3 in Chapter 2 of the current study) which suggests that the indirect recruitment method where manning agencies are used is preferred by international shipping industry employers due to the underlying cost efficiency. This contradiction could be attributed to the small size of the Australian shipping industry, the limited number of manning agencies and the difficulty in using manning agencies to recruit foreign seafarers. For example, policy bottlenecks and cumbersome administrative procedures make it difficult for employers to bring in foreign seafarers to work on class 457 visas in Australia (TIP 06, 02 and 03). As a result, most shipping industry employers in Australia directly recruit their seafarers locally.

The content analysis further revealed that when using the direct recruitment method, employers announce existing vacancies to seafarers through diverse means. The most notable means used to invite potential employees to apply for positions are: cadet recruitment/drives, company database contact details, use of old industry networks (contacts) and through the maritime unions. Advertisements are commonly placed in the print media or through the website of the employer. It is also common to find advertisements inviting people to apply for seafaring positions in industry and union journals such as Lloyds List. Thus the invitation to apply for jobs among shipping industry employers in Australia is mostly done

through industry contacts and advertisements (TIP 01, 03, 04, 05, 10 and 11). The invitation to apply for a job represents the first stage of the recruitment process.

The next stage in the recruitment process after announcement of vacancies is the processing of received applications from potential employees. At this stage employers rigorously consider many criteria to select the most suitable applicants for the job. The most common selection criteria used by Australian shipping industry employers for the screening of applications received include: the qualification and certification (licence) of applicants (mostly dependent on ship type, STCW requirements, flag state requirements and specific demands of the job type), working experience, additional relevant skills, age, location, psychometric profile of applicants and sometimes a trial voyage (also known as 'Christmas trip') [TIP 01, 02, 03, 05, 10]. Other criteria used are references and recommendations from people in the industry, willingness to go through further training, number of company-to-swing ratio and commitment to organisational goals (TIP 04, 06, 09, 11 and 12). Employers mostly look for leadership skills in people applying for senior officer (in the deck and engine departments) and master positions whereas the ability to work in a team forms the key skill people applying for rating positions (TIP 11 and 12). The results from the analysis of answers to question A5 revealed that shipping industry employers mostly use qualifications and the work experience of applicants to select them during the recruitment process.

Thus, having the right qualification is considered as the barest minimum of requirements that potential seafarers are supposed to meet. Employers also look for experience. The type and nature of experience required of applicants is mostly dependent on the category of seafarer position on offer. Employers are able to garner more information and also test the experience level of applicants during the interview stage. Often, more years and diverse kinds of experience are required for senior officer and master positions.

In terms of the frequency with which Australian shipping industry employers recruit seafarers, the results showed that there are three categories: annually, project-

basis and on-going basis (TIP 01-06 and 08-11). The number of people hired by employers for each round of recruitment is dependent on the size of an organisation, magnitude of the project being undertaken and the retention rate. Consequently, large organisations working on huge projects are likely to recruit more seafarers and vice versa. Similarly, employers with low retention rates may have to frequently recruit in large numbers to fill in the vacancies created by departing seafarers (TIP 04, 09 and 11).

Conversely, companies recruiting seafarers on a project or on-going basis do not have a specific number per the average rounds of recruitment. The number is erratic and fluctuates depending on the size of the project to be undertaken and other factors (number of people leaving the organisation in a given period). As remarked by one of the senior managers concerning this method:

Is based on the project and we don't lose too many as the project is running. We went from 22 in April 2011 with a minimum of 2 permanent vessels running to 500 within 6 months. So we just exploded from there...

-TIP 02

The extant literature on seafarer recruitment suggests that most seafarers are recruited and employed on short term contracts (Caesar, Cahoon & Fei 2013). As a result, international seafarers tend to change employers with each voyage (Thomas, Sampson & Zhao 2003). The situation is different in Australia. In the case of Australia, the results from the analysis of question A11 (*Can you explain how seafarers are employed by your organisation, for example are short term contracts used?*) of the transcripts from the phone interview showed that most seafarers are usually employed on permanent and long term contract basis (TIP 01 – 06 and 08-12). This prevalence of long term contracts among Australian shipping industry employers does not prevent them from losing seafarers. However, the reason for losing them to other competitors is not the lack of long term employment contracts as in the case of the international seafarer. The common reason for losing them is connected to wages rather than duration of contract. Thus there is a 100 percent

use of long term employment contract among the companies worked in by the 12 telephone interview respondents.

The use of casual and short term contracts in the Australian shipping industry is common where seafarers are being employed for a specific project (as in dredging or exploration which has a fixed duration) or where there is a need to introduce an element of probation prior to the granting of a permanent employment contract to the seafarer. Short term contracts are also used by employers when hiring relieving personnel to fill in for permanent employees who are sick or on leave.

Thus the process and criteria for recruiting seafarers in Australia are quite similar to what prevails in the international shipping market. The key difference lies in the type of contract upon which employment agreements are signed; with short term contracts mostly common among foreign employers and the long term for Australian employers.

6.5.3.2 Recruitment of women

Similar to the international seafaring labour market, results from the phone interviews showed that the number of women employed in the Australian shipping industry is quite low. One of the 12 respondents (TIP 05) do not have female seafarers in their organisation out of a total of 56 master mariners and three (TIP 08, 11 and 12) have about seven percent of their crew being women. The remaining eight of the 12 respondents indicated that only five percent of the crew onboard their ships are women (TIP 01, 02, 03, 04, 06, 07, 09 and 10). This represents an average of one female per ship.

The reasons given for the low number of females on Australian ships are different from the international market (where it is usually due to cultural reasons, structural exclusion on the basis of gender and wage differentials). The reasons given in Australia instead are their high dropout rates (inability to complete seafarer training courses and cadetships), the stereotyping of seafaring as a career for men and inability of the industry to attract women. This represents the view of all the 12 senior managers.

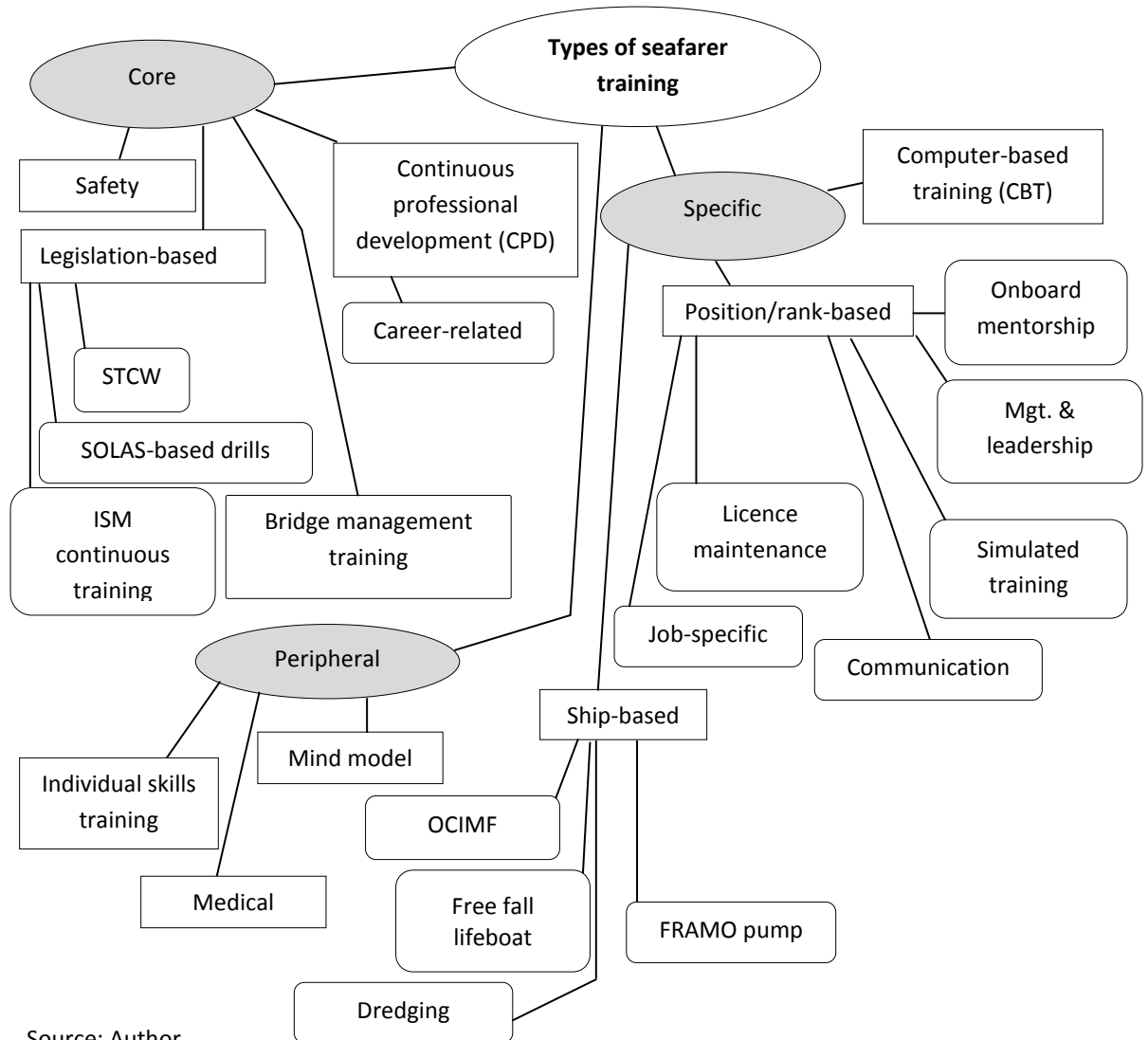
From a legislation perspective, much has been done in Australia to encourage women to work as seafarers. A notable one is the strong protection laws put in place to shield women from harassment and bullying onboard (TIP 11 and 12). However, increased attention is needed from Australian employers to make the seafaring career more attractive to women. The adoption of measures that encourage women to become seafarers may help alleviate the ship officer shortage problem affecting the shipping industry.

6.5.4 Training of seafarers

This section is based on answers provided by respondents to question A9 (*What types of training are provided to seafarers onboard your ships?*) of the telephone interview questionnaire. It primarily focuses on the types of training provided by Australian shipping industry employers to their seafarers. Training is a very important aspect of the career life of seafarers (TIP 09) as they need to maintain currency for their licences and be abreast of changing industry regulations which impacts greatly on their work at sea. Also, the provision of training is one of the key expectations that seafarers have of their employers at the time of entering the industry (TIP 04, 02, 05, 11 and 12); as it is one of the requirements for continual promotion (TIP 09). Initial results after a thematic analysis (Fereday & Muir-Cochrane 2008; Joffe 2011) of question A9 is shown in Figure 6.4 which depicts the key types of training provided to Australian seafarers by their employers.

A schematic map of the content analysis results shown in Figure 6.4 indicates there are three categories of training provided by Australian employers to their seafarers: core, specific and peripheral. The core type of training is the most common among the three. Due to the regulatory nature of most of the core training types shown in Figure 6.4, all the respondents mentioned that it forms the fundamental aspect of the training given to their seafarers (TIP 01-12). The second most popular category of training given by Australian shipping industry employers to their seafarers is the specific type of training which is mostly based on the type of ships operated by the company or the job position/rank of the seafarer.

Figure 6.4: Key types of training provided to seafarers



Source: Author

Typically, specific training is used to maintain the currency of the licence of officers. It also consists of the leadership and management as well as communication training given to seafarers. Thus seafarers within the lower ranks of the ships are mostly given core training and then the skill acquisition becomes more specific as they move up the ranks. Peripheral training is the third category provided to Australian seafarers by their employers. It is considered as important to improving the overall efficiency of the seafarer.

The provision of training by Australian shipping industry employers is done either directly or through a third party depending on the category of training (TIP 01, 03

and 04, 05, 06, 07, 08, 09, 10 and 11). The third party may be either a specialist maritime training organisation or a national maritime training college (TIP 04, 01 and 03); with the latter mostly used for the academic/vocational training of new entrants and seafarers seeking to move up the ranks onboard. Where seafarer training is provided directly (in-house) by the employer, the use of onboard mentors is the most preferred pathway where trainees (either cadets or junior officers) are shadowed by long serving and experienced officers whose primary goal will be to coach, monitor and report the performance of seafarers under their guidance for promotion purposes (TIP 02, 03, 04, 08, 11 and 12).

Therefore, the type of training given to seafarers is usually determined by the nature of ships operated by the organisation (employer). The type of ships gives an indication of the nature of business the company engages in and what sort of international shipping regulations will apply as a result. For instance, the training given to seafarers working with an oil tanker shipping company varies greatly compared to those working on RORO and general cargo ships. Seafarers on oil and gas tankers are respectively trained to meet many of the Oil Companies International Marine Forum (OCIMF) and International Oil Tanker and Terminal Safety Guide (ISGOTT) matrices (requirements). However, some of the training remains constant and is considered as rudimentary for all seafarers regardless of the type of ships their employer mostly operates. Typical among such types of training are those connected to international regulations such as the STCW and ISM code.

Whereas all the 12 senior managers explained that they provide the right amount of training to seafarers on an ad-hoc basis, seafarers (as indicated in web-based survey results in Chapter five) complained of the limited training given them by their employers. The area of difference in the views of employers and seafarers lies in the desire of the latter for training that helps them to build a broader repertoire of skills for future career engagements. Thus seafarers are disappointed as employers would rather focus on core training to meet regulatory requirements and equally

avoid the additional costs imposed by peripheral training. The refusal of shipping industry employers to provide peripheral (additional/supplementary) training such as conflict resolution management may further compound the difficulty of retaining ship officers.

6.5.4.1 Emerging challenges of seafarer training

The results revealed a collection of the challenges hindering the effective training of seafarers in the Australian shipping industry. The most prominent among these challenges is the lack of adequate training berths onboard the ships. This corroborates findings made in previous research (see for example, Bonnin et al. 2004; Ghosh & Bowles 2013) as discussed in Chapter two. In Australia the problem of limited training berths is being compounded by the shrinking size of the shipping industry as rising wage costs undermines the capacity of organisations to expand with some eventually closing down and moving to other countries (TIP 03, 06, 10 and 11). A shrinking shipping industry precipitates an associated problem of reduction in the number of vessels available for the training of seafarers. Consequently the number of trainees taken onboard annually by employers is reduced since only a limited number can find a training berth. With limited training berths many employers are unwilling to offer cadet traineeship to maritime college graduates. All the 12 senior managers concluded that the shortage of training berths onboard ships in the Australian shipping industry is the single most formidable challenge facing effective seafarer training.

The practice among employers is to choose the types of training to provide to their employees; mostly those skills needed for the performance of a specific task on the job or to meet regulatory requirements (TIP 01, 06, 05, 09 and 11). It is often the case that this leads to misunderstanding between the seafarer and the employer (TIP 01). Sometimes also, the seafarer may be given the privilege of choosing the type of training they may want to have but it is not mostly delivered on time. There is a general fear among employers of providing a certain skill set to their seafarers as this may result in them leaving to other organisations. Thus, as reflected in the words of 11 of the 12 senior managers, there are various areas of contention (such

as who bears the training costs, who decides the type and time of training) between Australian shipping industry employers and their seafarers:

A lot of times many of the training targets set are not met leaving a lot of people dismayed. Sometimes within our CPD training system, people highlight a sort training or set of skills they think they require but are not followed through in some instances and not followed through in a timely manner.

-Senior manager

We only provide the training needed for them to do the job and what is correct for us to meet legislative requirements...and that all comes with whatever is relevant to their role and the matrix that we have.

-Senior manager

I noticed exactly what some of them mean [that they are not given some types of training they want]... We sometimes think it is a waste of money because crew that were coming to us in 2008 were taking whatever qualifications that they could get – a little bit of what the Y generations are renowned for doing and they would leave.

-Senior manager

Since one of the reasons for not providing certain types of training is the fear that employees may leave, eight of the respondents explained that they use contractual training agreements to ensure that the employee stays and works over a given period of time before leaving (if they want to do so). Also, it is apparent from the analysis of the comments of participants that shipping industry employers are only keen to provide training that will equip their seafarers to meet safety and other regulatory requirements for shipboard operations. Additional training may be viewed as a burden to the skill development budget of the organisation. This may lead to disgruntled employees and could eventually result in turnover.

A careful look at the various areas of disagreements on training (between employers and seafarers) suggests that Australian shipping industry employers need

to thoroughly understand that skilled employees such as ship officers place so much value on organisations that invest in them. Eventually, training is very essential for the effective retention of highly skilled and scarce talents (Bonnin et al. 2004; Clayton 2006). Also, organisations need to outline the type of people they want to attract into their culture as this helps them to know (apart from the core type of training) what type of training will be valuable to their operational goals and the personal career goals of the seafarer. The value seafarers place on training suggests that Australian shipping industry employers need to find a realistic compromise on training requirements and other relevant details between them and their employees (seafarers) to improve their retention.

In conclusion, the unwillingness by employers to invest in the training of employees is a key challenge within the broader Australian maritime sector. In a recent study on skills issues in the Australian port industry, Gekara (2012) observes that instead of engaging in proactive and effective training and staff development activities, larger and richer employers resort to staff poaching. This is executed through a very subtle mechanism where they offer better conditions and poach staff from their smaller counterparts, who have little choice than to continue recruiting and training for their own needs but keep losing to their richer counterparts.

6.6 RETENTION OF SHIP OFFICERS: VIEW OF EMPLOYERS

This section explores the perception of respondents (managers) on the mobility and retention of seafarers in Australia. The results presented here constitute the responses given to certain questions (C1-C5, C7, C8, C10, C12-C16 and D1) in sections C and D of the telephone interview instrument (see Appendix D). All the questions used to obtain the textual data for this section were open-ended and focused on the perception of Australian shipping industry employers on the shortage of ship officers, impact of the ship officer shortage, the challenges of retaining seafarers, measures being used to address the challenges and the general strategies being used to address the ship officer shortage. As indicated earlier in

section 6.2, the responses to the questions used to collect data for this section were subjected to thematic and content analysis.

6.6.1 Reasons for leaving

In this section of the data analysis, the main objective is to identify the underlying personal and organisational reasons for which people may decide to leave their job as seafarers. An understanding of the reasons why employees leave their job is necessary for organisations to continuously improve their human resource strategies (Baabu, Chebolu & Balaji 2011; Dingwall 2012; Frase-Blunt 2004). Also, the high attrition rates among cadets, junior officers and senior officers underpins the need to evaluate the reasons why they leave in order to achieve low turnover rates. On average, Australian shipping industry employers experience between 18-27 percent of turnover per year (TIP 03, 04, 05, 08, 10 and 12). This is slightly higher compared to the average of 13-18.5 percent recorded for other industries in an Australian Human Resources Institute survey (Smith 2013). Others experience as high as 80% attrition among their cadets (TIP 02, 06, 09 and 11) with seafarers spending an average of six years within an organisation and then moving away (TIP 10, 04, 11, 01 and 02).

The phenomenon of high turnover rates among Australian seafarers further stresses the need to understand the reasons why they move from the ships to landside jobs. The content analysis revealed from the employer's viewpoint that the reasons for which seafarers leave their jobs at sea is multidimensional (TIP 05, 04, 10, 11 and 12). Three key themes emerged from the content analysis. It appears the desire to earn more wages, the career ambition to become a ship officer or work in a landside position and personal issues (such as starting a family) constitute the main reasons why Australian seafarers leave their jobs (TIP 01-12). Australian seafarers consider wages alongside the working and leave conditions. Thus where a better salary and terms of employment exists elsewhere, the seafarer is more likely to leave his current job. This directly relates to the theory of organisation equilibrium (March & Simon 1958) which implies that people may leave their current job when better alternatives emerge. As evident in the comments from two of the CEOs and

one senior manager, better wage offers from the offshore oil and gas or other landside jobs may lead to seafarers leaving their jobs:

Generally the reasons are that they have received a better offer of pay conditions and leave conditions. It seems to be a common threat. I will say not many leave because they are feeling disgruntled with the company.

-CEO

Often they would just say I want to go and get more money. Money is the main driver as the thought of earning more dollars is the main reasons why people leave the organisation.

-CEO

It is better wages, and better leave [swing conditions]; so shorter swings. The primary factor was and is still better wages. Thus we do have some people leaving to go to the shore side positions as the conditions are a lot better.

-Senior manager

The premium Australian seafarers place on high salaries and wages has created a poaching war for highly skilled ship officers among employers within the Australian shipping industry. This sort of competition, which is very common between the blue water and offshore oil and gas sectors, is not healthy for the growth of the shipping industry in Australia as it leads to misplaced priorities among employers with regards to the training of seafarers and building of promising career paths for them.

Aside from wages and working conditions, another reason why seafarers may leave is their career ambition. The phone interview results showed that the availability of genuine opportunities for skill development and promotion is very important to most seafarers (TIP 09, 01, 03, 11 and 12). In a situation where the seafarer is unable to access realistic CPD schemes, they are forced to move to other sectors of the maritime industry or to organisations ready to offer them such opportunities. For instance, a ship officer who wants to gain experience in LNG tankers may leave his/her oil tanker employer to another. In the case of some ship masters and senior officers, the desire to work within the office environment results in a movement

from the ships to pursue management training courses (such as MBAs) ashore. These comments from senior managers reflect the intricacies surrounding the career ambitions of Australian seafarers and how it eventually results in their moving away from the blue water to other sectors in the shipping industry or the landside:

The instances where we've lost young masters in their mid-30s is where they've moved into the pilot service [which has very high pay levels and people are in their home port every night].

-TIP 04

When there are no promotions available they would want to go off to another company and start up to see if they can get promoted.

-TIP 11

During the phone interviews, all the four CEOs and eight senior managers stressed that family commitments and the desire to be with friends and loved ones is among the personal reasons given by seafarers when leaving their jobs to the landside (TIP 10, 07, 09, 10, 11 and 12). The general perception among Australian shipping industry employers is that seafarers do not leave them on bad terms. This is also evident in the convergence and turnover models respectively presented in Figures 3.3 and 3.8. Whatever the case, the process leads to the creation of vacancies which then have to be filled immediately to avoid unwanted consequences. Beside the key reasons discussed, the interview participants mentioned other reasons such as: desire to have some time off (a sort of vacation), job security issues, lengthy process of requalification, criminalisation of officers and boredom at sea (TIP 10, 03, 12 and 05). Table 6.5 summarises and compares between seafarers, employers and the literature, the reasons why Australian seafarers may permanently or temporarily leave their jobs at sea.

Issues such as health, termination of a project, need to attend to emergency situations, desire to gain specific experiences and the need to have some time off are among some of the new reasons discovered from the telephone interview but

not present in the literature as responsible for the movement of Australian seafarers to landside jobs. There appears to be a general trend of agreement between seafarers and employers in connection with the personal and extrinsic category of reasons why the former move to landside jobs. The areas of differences between seafarers and employers are mostly found under organisational factors. The distinction between the career plan of seafarers and the human resource development plans of employers (Rothwell 2005, 2010; Rothwell & Kazanas 2003) may be the reason for their differing views on organisational reasons why seafarers move to landside jobs. Also, given that many shipping industry employers are not committed to the training of seafarers, differences are bound to exist in their views of the reasons for which seafarers leave their jobs.

Table 6.5: Reasons why Australian seafarer leave jobs at sea

| REASONS | E/ERS & SFs | E/ERS | SFs | LIT. |
|--|-------------|-------|-----|------|
| Personal/career reasons | | | | |
| On health grounds | ✓ | ✓ | ✓ | – |
| To have some time off | ✓ | ✓ | ✓ | – |
| Attend to an emergency situation on land | ✓ | ✓ | – | – |
| Chart a personal career pathway | ✓ | ✓ | ✓ | ✓ |
| For a long term job offer (job security) | ✓ | ✓ | ✓ | ✓ |
| Desire to gain a specific experience | ✓ | ✓ | – | – |
| To be with family | ✓ | ✓ | ✓ | ✓ |
| Enter into management positions | – | ✓ | ✓ | – |
| To seek for shorter swings | ✓ | ✓ | ✓ | – |
| Acquisition of a higher ticket | – | ✓ | – | – |
| Personal safety | – | – | ✓ | ✓ |
| To seek further contract work | – | ✓ | – | – |
| Organisational reasons | | | | |
| Absence of a CPD scheme | – | – | ✓ | – |
| Lack of a collegial working environment | – | – | ✓ | ✓ |
| Limited size of project | – | ✓ | – | – |
| Lack of a defined career path | – | – | ✓ | – |
| Lack of training from employer | – | – | ✓ | ✓ |
| salary ceiling for masters and senior officers | ✓ | ✓ | ✓ | ✓ |
| Lack of communication with home | ✓ | ✓ | ✓ | ✓ |
| Lack of genuine opportunities for promotion | ✓ | ✓ | ✓ | ✓ |
| Completion/termination of a project | ✓ | ✓ | ✓ | – |
| Retirement | – | ✓ | – | – |
| Industry reasons | | | | |
| Boredom at sea | – | – | ✓ | ✓ |
| Burdensome administrative tasks | – | – | ✓ | ✓ |
| Unfair sea time regulations | – | ✓ | – | – |
| Lengthy requalification process | – | ✓ | – | – |
| Criminalisation of ship officers | ✓ | ✓ | ✓ | ✓ |

| | | | | |
|-----------------------------|---|---|---|---|
| Perceived working pressures | – | ✓ | – | ✓ |
| Extrinsic reasons | | | | |
| Higher salaries | ✓ | ✓ | ✓ | ✓ |
| Better working conditions | ✓ | ✓ | ✓ | ✓ |

E/ERS: Employers; SFs: Seafarers; LIT: Literature

Source: Author

6.6.2 Retention strategies of employers

The primary purpose of this study is to identify the measures that are used by the employers of seafarers to improve the retention of ship officers. The findings presented in sub-sections 6.4 and 6.6.1 highlights the pertinent issues surrounding the shortage of ship officers in the Australian shipping industry. Additionally, the discussion on the impact of the ship officer shortage provokes the need to identify relevant strategies to address the multidimensional aspects of the problem. The result presented in this sub-section represents the answers given by the phone interview participants to questions C10, C13 and C15 in the telephone survey instrument:

- C10: What strategies has your company instituted to improve retention among ship officers working onboard your ships?
- C13: How do you assess whether your seafarers are satisfied with their jobs?
- C15: Can you please describe the career path available for the seafarers employed in your organisation?

Primarily, these questions sought to collect data from senior managers on the strategies they were using to improve ship officer retention, monitoring of satisfaction among their seafarers and the career path available to seafarers in their respective organisations. The four general themes that emerged from the data analysis give an indication of the various categories of ship officer retention strategies used by employers in the Australian shipping industry.

6.6.2.1 Salaries and working conditions

The reliance on wages and good working conditions to encourage ship officers to continue working at sea is very common among employers in the Australian shipping industry (TIP 01-12). The effectiveness of this strategy is based on the understanding that most Australian seafarers are attracted to the seafaring career

due to the possibility of earning high salaries while working under favourable employment contracts. Consequently, a lot of the competition among Australian shipping industry employers for skilled talent is won by the ability to offer more money and leave time (TIP 04, 06, 03, 05, 09, 10, and 12). Whereas this competition often leads to the poaching of ship officers, it also has a positive aspect – improved conditions onboard the ships. The quality of Australian vessels is probably the highest in the world (Alderton et al. 2004; Kokoszko 2006); the conditions [comforts and safety] onboard and the salaries are considered to be among the best in the world (TIP 02). When working conditions were explained by respondents, the other things mentioned apart from comfort and safety is: better connectivity to the landside, high percentages of superannuation, recreation facilities, good leave times and other bonuses. The impact of salaries and working conditions on the retention of ship officers was emphasised in the following statements from the senior managers:

Australian seafarers, to keep them onboard, their biggest interest is their wages and swing length. Secondary to those issues is access to modern communications. Some of the newer methods that some of the companies are using is that they are now paying higher superannuation to try to compete with the bigger wages in the offshore industry.

-TIP 06

You know the big one is lack of connectivity and not offering your seafarer the ability to have Wi-Fi is just crucifying yourself. So if you don't offer that to your people, you're just shooting yourself in the foot and you've just got to have it there.

-TIP 07

...the strategies are all based on the salaries. So it is mostly good salaries and lots of time off.

-TIP 03

Seafarers also share the same view about the influence of high salaries in retaining them onboard ships. Despite the effectiveness of high wages in retaining skilled

seafarers such as senior officers and chief engineers, there are downsides. First, it places additional burden on the budget of industry employers. Second, the high salaries have led to a situation where officers who are supposed to go on retirement continue working. This deprives lower rank officers from accessing the much needed opportunities for promotion. As explained by two of the senior managers:

Within the industry at this point in time, because the wages are so high; we are getting a lot of seafarers that are getting up to their 70s staying in the job. I've had people in their 70s or 72 staying in jobs.

-TIP 04

The problem is the wages are so high now that nobody wants to leave. Let's assume that it's a captain, now the captain is now on \$20,000 plus he get 20% superannuation so he's getting \$40,000 super, working six months a year; so he's working 4 weeks on 4 weeks off; plus he gets long service leave as well. Why would you leave?

-TIP 11

It is an irony that despite the high salaries for officers, they do leave to landside jobs. Except where a ship officer with a senior certificate (such as a captain or chief engineer) is needed for the purpose of training someone younger then this phenomenon of older officers staying longer in their positions will negatively impact on the career plans of shipping industry employers. For instance, the refusal of aged ship officers to retire is limiting promotion opportunities for other people.

6.6.2.2 Career paths and provision of training

One of the factors identified by the senior managers as being effective in retaining Australian ship officers at sea is the availability of opportunities for them to advance their respective careers (TIP 05, 04, 08, and 09). The 12 senior managers revealed that seafarers are willing to work with organisations having a comprehensive career path from traineeship through to fully qualified deck/engineering officer positions (TIP 01, 04, 06, 07, 11 and 12). As explained by the respondents, a typical ideal career path from the seafarer's viewpoint should have all training fully paid for by

the employer, involve a CPD scheme at the various officer levels and finally culminate in shore management positions (if that is what the individual wants). Additionally, some seafarers may want to advance their career in pilotage services or go on secondment to various projects using their skills or broadening their existing skills. The following statements from some of the respondents typically describe the nature of the career paths for seafarers among Australian shipping industry employers:

Generally, you look at them, assess and promote and when they are deemed to be experienced enough then they have the certificates. We have master mentors onboard the vessels to conduct trainings and that offers a lot of opportunities for the mentors to see junior officers and assess them and promote them on occasions as well. The master mentors will ride with them on the vessels to do trainings and special moves and carry out certain types of exercises.

-TIP 02

People actually have a planned career path. They actually want to develop onto onshore management career as opposed to continuing at sea...

-TIP 07

...basically it's the same; recruitment, do their initial training, get onboard, get as much experience, shadow them with someone that's very experienced onboard; retention if we can.

-TIP 08

The comments from the participants on the nature of career paths suggest that it is an issue that is taken quite seriously by Australian seafarers. In the web-based survey results presented in Chapter five, seafarers expressed misgivings about the nature of mentorships onboard. For instance, most seafarers complain of inequality in career progression schemes within their respective organisations. Consequently, Australian shipping industry employers need to devote additional attention and resources to the development of the career of their seafarers. For organisations to

effectively retain their skilled talent, all forms of career advancement schemes are used to motivate seafarers to continue working at sea for long years. Essentially, these strategies involve the training of seafarers, CPD systems, onboard mentoring, assessments and promotions. These comments from the participants highlight some of the career advancement strategies being used by the Australian shipping industry employers to retain ship officers onboard their ships:

To ensure that long term retention, we offer them career progression. I guess that could be part of the strategy for retaining. We also do reviews of the CPD through a scope of processes.

-TIP 01

We ensure the security of their tenure through meaningful professional development programmes and offer opportunities for annual promotions.

-TIP 05

For them to stay at the company for a long period of time, they are being offered a career path, so the company has invested in training them. It is not just their tickets but a whole list of those other things as well like personal development, leadership development and management skills. We spend a lot of time knowing our people to know the ones that want a certain career path and give them the opportunities and listen to them.

-TIP 07

Thus as part of creating career paths, ship officers are placed in different roles for them to decide which area (aspect of the seafaring career) they are comfortable with and will want to pursue further. The provision of training constitutes a key component of the career path designed by Australian shipping industry employers for their seafarers. However, the nature of training provided limits senior officers from acquiring any sort of unique set of skills they may need to take up jobs in other sectors of the industry or with other employers. Only one of the participants (TIP 07) indicated the presence of a comprehensive promotion policy where training is provided without much control from them. In this case, the skill levels of the seafarers are monitored and then appropriate additional (either specific/peripheral)

training is given as per their individual career ambitions. Given that Australian seafarers attach much importance to training (as per the results of the web-based survey in Chapter five), employers who fail to provide enough of it may be doing a lot of disservice to efforts aimed at retaining them onboard.

6.6.2.3 Provision of facilities onboard

Traditionally, the facilities (mostly recreational) provided onboard ships are regarded from the psychological contract and labour conventions perspective as part of the working contract of seafarers. At least this was the initial understanding based on the 2006 Maritime Labour Convention; but not all employers provided the recommended level of entertainment facilities onboard their ships. In recent times however, Australian shipping industry employers are relying on the provision of communication and recreational facilities (not only as a means of meeting regulatory requirements) to improve retention rates among their ship officers and other categories of seafarers. Some of the comments from participants explain how they rely on the provision of internet, phone and recreation rooms to encourage their seafarers to continue working onboard:

The things we have been doing of late are trying to enhance internet connectivity and communications. We also have TV and recreation rooms. Also onboard is the gym facility. The ships libraries have gone by the wayside of the years but you now see DVD collections, video libraries and internet.

-TIP 01

We provide all the amenities and comforts including internet and communication opportunities, media, movies and satellite TV, etc. We try to accommodate their requirements as much as we can within budgets.

-TIP 02

We upgrade the gym every year; we put satellite TVs onboard the ships over the last few years; we've also put on free internet with Wi-Fi onboard so they can use their own laptops onboard the ships.

-TIP 11

Although employers try to provide the necessary entertainment and communication to meet the needs of their seafarers, the latter do not always have all their demands met. For instance, due to industry awareness and regulatory restrictions with regards to alcohol and bars onboard, the bars have become restricted and more shut down. This means people onboard stop socialising, have their shower in the evening and go to the cabin to watch DVD or play with the computer (TIP 09, 04 and 01). With decreasing social interaction among seafarers on most Australian ships (TIP 01, 05, 09 and 11), the provision of communication and recreational facilities helps to reduce isolation. Isolation among seafarers increases the probability of loneliness and homesickness (Borovnik 2011). Consequently, strategies capable of reducing isolation could help to effectively improve retention among Australian ship officers.

6.6.2.4 Other measures

The telephone interview participants also provided other categories of measures being used by Australian shipping industry employers to improve the retention of ship officers and other classifications of seafarers. The summarised opinions include:

1. Giving recognition to the contribution and efforts of individuals through the offering of employee welfare schemes and other affiliated services such leave plan (pro-rata and long service), salary sacrifice and other incentives (TIP 01, 02, 05, 06, 07 and 09)
2. Encouraging a friendly working environment among the seafarers onboard and between them and the staff on the landside. This helps managers to know the seafaring staff on a more personal level (TIP 02, 05, 08 and 11).
3. Use new ship building contracts as evidence to convince crew to stay and secure long-term industry projects for the organisation to encourage seafarers with distant future ambitions to continue working with the organisation (TIP 02, 06, 09 and 11).

Apparently, the multitude of reasons underpinning the difficulty in retaining ship officers has created a situation where the retention strategies that Australian

shipping industry employers use are not one-dimensional. The strategies used by the companies include giving seafarers a roadmap (career path) and remuneration, good welfare schemes and shorter swing times (very crucial to family-oriented seafarers to maintain work balance).

6.7 SUMMARY

This Chapter presented the results of the semi-structured phone interviews with senior managers of Australian shipping industry employers. There was a response rate of 60 percent which represents 12 interviews from the sample of 20 targeted participants. The results revealed that shipping industry employers in Australia regard themselves as being successful in attracting seafarers. This is mainly attributed to the relatively high salaries and good working conditions offered to Australian seafarers. The difficulty in attracting deck officers emerged as the major seafarer attraction challenge for employers. A summary of the responses showed the desire to earn a relatively high salary with plenty of time off and genuine opportunities for career advancement as the main expectations of Australian seafarers.

In the Australian shipping industry, employers mostly use the direct recruitment method to source seafarers from within the lower ranks and use the services of manning agencies to recruit senior officers. Training is a very important aspect of the career life of seafarers and a very key expectation among them. The type of training given to seafarers is usually determined by the nature of ships operated by the organisation (employer). Also, the type of training provided is decided by the employer and this may sometimes lead to disagreements between employers and seafarers. Limited training berths and the lack of commitment among employers emerged as the key challenge confronting effective training in the Australian shipping industry.

The shortage of ship officers is regarded as a major concern within the Australian shipping industry. Consequently, there is competition for skilled talents (such as senior officers and engineers) between the blue water and other sectors within the

Australian shipping industry; where money is used as a major tool by competitors to poach for ship officers. The shortage issue is made worse by the high mobility among officers where they move from the ships to landside jobs. In answering the second secondary research question of the current study, this Chapter highlighted complex retention issues, lack of opportunities for training, competition from other sectors and industry regulatory lapses as the four key categories of reasons for the shortage of ship officers in the Australian shipping industry. In the current Chapter also, the third secondary research question which focuses on the measures being used by shipping industry employers to address the shortage of ship officers has been discussed. It was found that, to address the ship officer shortage problem, shipping industry employers in Australia are using: high salaries and good working conditions, provision of training and career paths for seafarers and the provision of recreational and communication facilities onboard. The final Chapter discusses the purpose and value of the research, highlights the major findings, presents the research limitations and gives recommendation for future research.

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

7.1 INTRODUCTION

This thesis began by highlighting how the complexity of retention issues among shipping industry employers may influence the global shortage of ship officers. There is a general consensus within the literature that ship to shore mobility among ship officers and cadets is increasing. Prolonging the number of years that seafarers spend at sea and their subsequent retention was therefore an important issue addressed in this thesis.

This final Chapter focuses on four key issues. Firstly, the Chapter begins by highlighting the findings previously discussed in-depth in Chapters five and six. Secondly, the value and contribution of the study is explained. Thirdly, the limitations common to the study are outlined to reflect the choices made by the researcher during the study, particularly at the design and methodology stage. Finally, the Chapter provides suggestions and recommendations for future research.

7.2 SUMMARY OF RESULTS

The key purpose of this thesis was to identify the measures being used by shipping industry employers to improve the retention of ship officers. Consequently, the primary research question (PRQ) enquired ‘How can shipping industry employers improve the retention of ship officers?’ To find adequate answers to the PRQ, the following two secondary research questions (SRQs) needed to be addressed first:

- SRQ1: What factors determine the movement of ship officers from ships to landside jobs?
- SRQ2: What are the major causes of the industry-wide shortage of ship officers?

A thorough understanding of the causes of the ship officer shortage and the reasons why ship officers move to landside jobs was necessary to evaluate the existing human resource and other strategies being used by shipping industry employers and consequently identify areas that may need improvement and refocusing.

7.2.1 Response to SRQ1

Results from the web-based survey of ship officers revealed that the factors contributing to the movement of people from ships to landside jobs could be categorised into four factors: organisational, extrinsic, personal and industry. The organisational factors indicated by the results include:

- Dissatisfaction with the employer;
- Poor working conditions onboard;
- Lack of a supportive organisational culture; and
- Bullying from superiors or workmates onboard.

Given that all these factors are employer-related, they create a negative and poor organisational culture within shipping organisations, which when not adequately addressed triggers a career decision to move to landside jobs. Extrinsic factors, which relate to salary issues, were also found to be another category of the factors influencing the mobility of ship officers from vessels to landside jobs. The components comprising the extrinsic factors are:

- Late payment of salary;
- Persistent failure of employer to pay salary due to financial problems; and
- Problems with being granted sick leave.

The study found that Australian ship officers place a high premium on salary and could easily be influenced by salary-related challenges to move to landside jobs. Among the four categories of factors found to influence ship officers to move to landside jobs, personal factors were the most influential. This consists of individual reasons such as:

- The desire to start a family;
- To live in a relationship;
- To care for aging parents;
- Family stress; and
- Financial stress.

Shipping industry employers find it difficult to manage personal factors despite the strong influence it has on the career decisions of seafarers. The fourth category of factors found to influence the movement of ship officers to landside jobs relate to the peculiar nature of work in the shipping industry. The industry factors include:

- Too much paperwork to be done per voyage;
- Onboard fatigue;
- Too much workload onboard; and
- Small crew size onboard.

The various categories of factors discovered as being responsible for the movement of ship officers to landside jobs highlights the multidimensional aspect of the ship officer turnover problem. Thus, the challenges confronting a stable and sustainable supply of seafarers are numerous and multidimensional; part of which can be traced to poor human resource policies and practices at industry and organisational levels.

Furthermore, in the second data collection stage findings from the telephone interviews of the 12 senior managers working with the shipping industry employers revealed that ship officers may leave the sea due to the desire to earn more wages, poor working conditions, career ambitions and personal issues. This corroborates previous findings in the web-based survey results discussed in Chapter five where seafarers also indicated salary and better working conditions are the key reasons that motivate them to enter and be retained in the seafaring career. The general impression among Australian shipping industry employers is that ship officers do not leave their organisations based on negative reasons. The same view is shared by Australian ship officers.

7.2.2 Response to SRQ2

After a content analysis of the transcripts (relating to the causes and impact of the ship officers shortage) from the telephone interviews with employers, the thesis found that a shortage of ship officers exists and is considered as a significant issue both within the Australian and international shipping industries. In particular, a

shortage of masters for specialised vessels and marine engineers exists. The shortage of officers leads to the disruption of ship operations and late completion of projects. It also places a huge financial burden on shipping industry employers as they are compelled to hire relief officers which is a very expensive option. The key reasons given by employers for the shortage of ship officers are:

- An inability to retain new generation ship officers beyond the period of ten years
- Poor industry attitude to the training of seafarers
- Lack of genuine opportunities for career advancement at sea and;
- The strong competition for skilled seafarers from the landside sectors of the shipping industry.

Another significant finding of the research is that the current recruitment level for seafarers appears to be meeting demand in these times of reduced trade, but what is clearly lacking is a retention policy. There is the need for a multidimensional approach capable of increasing the number of years that ship officers spend at sea by improving employee satisfaction and loyalty. Several strategies have been suggested (see for example, Cahoon, Haugstetter & Bhaskar 2010; Fei 2009) to achieve improved retention among ship officers, but what this thesis advocates is the need to concentrate on the psychological contract which primarily deals with issues of employee expectations. An appropriate management of expectations among ship officers may lead to an increase in the number of years they spend at sea by improving employee satisfaction and loyalty. Specifically, factors such as working hours, rotation systems and holidays, are all important components of the psychological contract and require an effective management of expectations at the recruitment stage and throughout the seafaring career. Thus, a clever solution for shipowners and other employers within the shipping industry with regards to the early exiting of ship officers is to assess the expectations of ship officers and employ a reasonable measure to ensure they are met or the expectations be better managed. This must be executed by taking into account existing disparities in the

expectations of ship officers based on, for example, their demographic disparities, cultural background, qualifications and experience.

Managing the expectations of ship officers provokes the need for employers to adopt an employee career development plan right from the time of recruitment. For instance, the findings from both the web-based survey of ship officers and the telephone interviews indicated that what is clearly lacking for the shipping industry's labour market are distinct career pathways for seafarers both at sea and on land. Defining career paths for seafarers is necessary as this will supplement other efforts aimed at improving the recruitment and retention of seafarers among shipping industry employers. Practically, the definition of career paths for seafarers must involve an integration of both sea and land office positions. This may help to keep highly skilled seafarers, such as those within the officer categories, from entirely leaving the shipping industry. This also calls for vertical integration among the employers of seafarers and other industries where seafarers' multi-skills in operations and management may be needed. Specifically, a multi-stakeholder approach is needed to harness innovative MET schemes that could represent a practical alternative to the measures being adopted singularly by shipping industry employers to address the career aspirations of seafarers for their eventual retention at sea. Collaboration for industry research is also needed among stakeholders such as shipowners, vessel operators, ship managers, MET institutes, Flag State Administrations (FSAs), the International Transport Federation (ITF), International Chamber of Shipping (ICS) and National Labour Authorities.

MET institutes constitute an important aspect of the multi-stakeholder approach as their input could help provide varied career options for potential seafarers. In line with this, MET institutes should consider providing training that gives cadets a multi-faceted set of skills that could enhance their career options. Nautical students may be looking for a training schedule that focuses on giving them more avenues in their future career aspirations. Thus, this internationalisation and diversification of maritime courses (Lobrigo & Pawlik 2014) could be used as a campaign strategy to

attract younger people into the shipping industry. The success of integrating MET institutes into the creation of sustainable career paths for seafarers is dependent on an improved relationship (collaboration) between them and shipping industry employers. However, the relationship between MET institutes and shipping industry employers is moderated by cultural issues and the dynamic nature of the environment within which they operate.

This thesis shows there is continuous change happening within organisations and the environment in which they operate due to globalisation. Additionally, dynamics in the job markets are creating a challenge for many organisations in retaining their core staff. This trend is no different in seafaring as the new generation of ship officers are more devoted to their job position and how it will benefit their career rather than the organisation; and will therefore leave if the job characteristics fall below their expectations. Consequently, whereas Generation X ship officers are more likely to be loyal to an employer, Generation Y ship officers may rather focus on the job and what it has to offer with regards to expectations and their career. This evolving trend means that Generation X human resource techniques may be ineffective in retaining Generation Y employees (Phillips & Edwards 2009).

The findings presented in the previous Chapters shows that some shipping industry employers are quite proactive in planning and implementing policies for the effective recruitment and retention of seafarers; while others are in a developmental phase in this regard. However, people still perceive the shipping industry as one where there is evidence of little commitment toward the training of seafarers, shirking of training responsibilities, poor recruitment practices (such as poaching of officers), the expectations of seafarers not being effectively managed, unfavourable employment contracts, and the introduction of policies that are not perceived internationally as being employee-friendly. Consequently, there is an urgent need for the further development of human resource strategies to secure a sustainable supply of skilled seafarers for the shipping industry. Unfortunately, there are many factors working against the realisation of a less volatile seafarer

labour market. Principally, the attitude of shipping companies towards the recruitment, training and retention of seafarers does not always appear to follow the traditional human resource view where employers are expected to provide training to their employees.

7.3 CONTRIBUTIONS OF THE RESEARCH

Several contributions have been made by this study. There are two categories of contributions. Firstly, several findings made in previous research in relation to the recruitment and retention of seafarers was confirmed and further expanded in the current study. Also, strategic human resource and internal marketing theories were applied in diverse ways (in the form of recommendations) to provide a new perspective on the ship officer shortage problem in the shipping industry.

7.3.1 Expansion of existing knowledge on the career of seafarers

From the literature review and web-based survey results of this research, knowledge of the reasons why people become seafarers is further expanded within both an Australian and developed maritime country context. Previous research (see for example, Caesar & Cahoon 2014) shows that shipping industry employers have limited knowledge about the seafarers they employ. In particular, there is little awareness about the reasons why people become seafarers, their expectations and career ambitions. This may be resulting in the reduced retention of the seafarer onboard ships as this lack of information of the seafarer's career aspirations may translate into poor management of their expectations. This suggests that issues connected to career ambitions exert significant influence when people are becoming seafarers. Consequently, shipping industry employers need to have a better understanding of the career ambitions of the people that they recruit. This is necessary as it will help both the trainers of seafarers and shipping industry employers to adequately manage their expectations. This requires a thorough understanding of the factors influencing people to opt for a seafaring career. Thus this thesis offers a more reflective understanding of the turnover process among ship officers and other categories of seafarers within the context of a developed maritime nation.

7.3.2 Reasons why seafaring is unattractive

This thesis has also argued that from an industry perspective, identifying and having a proper understanding of the factors that make seafaring less attractive is quite necessary to significantly improve the ability of shipping industry employers to attract potential people into a seafaring career. Addressing issues such as limited shore leave may lead to improved attraction of young people into the seafaring career in developed countries. However, the results have shown that the Australian shipping industry is quite unique since swing times tend to be shorter than the global average. This is mainly attributable to the high level trade union activity in Australia. Also, the relatively high salary levels in the Australian shipping industry could lessen the extent to which certain factors may impact on career decisions among potential seafarers. As per the shortcomings of the prevailing seafarer attraction methods, this study argues that efforts must be made both at the organisation and industry level to address issues that hinder effective recruitment as inadequacies at all these levels have equally contributed to the current shortage of ship officers. The study therefore contributes to the literature on the employment of seafarers, particularly as to how the human resource practices among shipping industry employers negatively impacts the recruitment and retention of seafarers.

7.3.3 Differing views of seafarers and employers turnover

The thesis also shows the similarities and differences in the views of seafarers and their employers on issues such as the shortage of ship officers, challenges relating to training and the reasons why ship officers leave their job onboard ships to landside positions. The lack of training berths and high costs of education are two the areas of agreement between both seafarers and their employers. Also, with regards to similarities, the phone interview results corroborates findings made in Chapter five among Australian seafarers which directly concludes that money is the key factor motivating them to take up a career in seafaring. Thus, both seafarers and the senior managers regard the desire to earn high salary, good working conditions and career progression and desire to be with family as the key

expectations of potential seafarers (new industry entrants) and those already working in the industry. It was very important to verify any differences and similarities that might have existed between the two groups (seafarers and employers) with regards to career expectations, because the existence of differences may suggest that employers need to refocus their recruitment processes and realign existing retention strategies to appropriately cater for the needs of seafarers.

The key areas of differences in the views between ship officers and senior managers are in the lack of training and the absence of genuine opportunities for promotions. Whereas results from the web-based survey of ship officers (in Chapter five) revealed that seafarers may at times want to choose the type of training they are given by employers, the findings from the telephone interviews portrays a different view. Shipping industry employers choose the type and nature of training given to the seafarers. The seafarers explained that the lack of training and genuine career progression opportunities cause them to leave to landside jobs. Senior managers however explained that they give enough training and career opportunities to their seafarers. Thus a difference exists in how seafarers and their employers view training.

7.3.4 Addressing ship officer shortage through succession planning

In this study, the shortcomings of the current strategies used by shipping industry employers in the retention of ship officers are discussed by highlighting the need for a rethink of existing human resource practices to cater for the career ambitions of ship officers in a highly dynamic shipping industry. Consequently, this study recommends the need to focus on addressing the complex range of expectations of seafarers in the shipping industry to alleviate the ship officer shortage. This can be achieved through pragmatic hiring and retention policies. This concerns the collective questioning of what is currently happening with seafarer career development and then adopting a more reliable and sustainable approach for the building of a more defined career pathway for people who desire to work in the shipping industry. Succession planning will form an important aspect of career

planning for seafarers. By adopting succession planning strategies, employers of seafarers will be better placed to cater for future increases in labour demand during periods of economic prosperity. Additionally, shipping companies should consider the diverse career needs and ambitions of their employees when designing the succession plan. Any succession plan designed by shipping companies must be capable of effectively tracking, mentoring and training seafarers to occupy future positions.

Hence this thesis has demonstrated succession planning as an example of how traditional human resource management tools can be employed to sustain the supply of seafarers since it will address the problem in a more proactive rather than reactive manner. An effective succession plan for seafarers may help to address the increasing rate of attrition recorded among cadets, junior and senior officers as it helps to ameliorate the main issues responsible for such a phenomenon.

7.3.5 Need to rethink of current MET paradigms

One of the key recommendations put forward in this thesis is the need for refocusing the current methods used by MET institutes to train seafarers. The thesis argues that improving the current paradigms under which seafarers are trained will provide a more sustainable career path for seafarers as well as compensate for the poorer human resource practices among some shipping industry employers; identified as one of the key reasons for the difficulty in retaining ship officers onboard ships. Whereas the ship officer shortage problem could be addressed using a variety of pragmatic human resource policies and strategies, a new approach has been proposed in this thesis which advocates that a critical rethink of the current paradigms used in seafarer training is needed to chart a new and more sustainable career path that will ensure their eventual retention within the shipping industry.

7.3.6 Introduction of innovative methodology to seafarer research

This thesis has also made a methodological contribution to the growing body of research on human resource issues within the shipping industry. For instance, the explanatory sequential mixed methods design used in this study contributes to the methodology on seafarer research. Past research (such as Gekara 2009) on

seafarers mostly used semi-structured interviews and did not include the views of both seafarers and their employers. In this study, the web-based survey and telephone interviews helped to integrate the views of ship officers and shipping companies in a single study. The mixed methods design also helped to identify and explain the reasons why ship officers leave their jobs at sea to landside positions from the perspectives of both seafarers and their employers. This has yielded fresh perspectives on the human resource challenges within the shipping industry. Although mixed methods research has been on the increase in social science, its application in business management research has been quite limited (Creswell & Plano-Clark 2011; Creswell & Clark 2007). In particular, there is a paucity of research on the explicit application of a mixed methods research design to the maritime disciplines. With the use of the explanatory sequential mixed methods design, this study has introduced an innovative methodology for seafarer research. Also, this study integrates the quantitative and qualitative data strands for a better understanding of the turnover process among ship officers in the shipping industry.

7.3.7 Introduction of the convergence and seafarer turnover models

Conceptually, this study has applied strategic human resource and employer branding theories to the ship officer shortage problem. Three theories related to attraction, motivation and attrition of employees were applied. These were: Rothwell's (2005, 2010) Succession Planning Theory, March and Simon's (1958) Theory of Organisational Equilibrium as well as Steel, Griffeth and Hom's (2002) Staff Motivation and Retention Theory. Given that poor human resource practices have been reported among shipping industry employers, the application of strategic human resource theories to the problem is appropriate. Thus it has investigated the turnover problem among ship officers from a new perspective. Traditionally, theories on employee attrition and retention (such as the March and Simon's Theory of Organisational Equilibrium) suggests that employees will leave their organisations/jobs when they are not satisfied and better opportunities exist elsewhere. However, the seafarer convergence model shown in Figure 3.3 and the conceptual model in Figure 3.8 advances the understanding of the pattern of

turnover among ship officers and other categories of seafarers in the shipping industry. The conceptual model in Figure 3.8 highlights the impact of moderating variables such as age group, career orientation and family commitments on turnover decision among ship officers. Thus a Generation Y ship officer with an opportunistic career orientation is more likely to leave a seagoing position and move to the landside sector despite good working conditions at sea and a great organisational culture. Thus this study has contributed to an understanding of how the application of traditional HR models may differ in the shipping industry compared to the primary industries where such models have been used over the years. This thesis also provides a synthesis of the multiple variables making seafaring unattractive and their impact on retention.

7.3.8 The necessity of a multipronged approach

Finally, this thesis proposes a list of important issues that needs to be addressed on a multipronged basis by shipping industry employers to address the ship officer shortage problem. Aside from engaging in corporate social responsibility practices, shipping industry employers need to refine the attraction methods being used to encourage young people into seafaring. Consequently, human resource managers in shipping industry organisations need to increase collaboration with MET institutes in their respective countries. They are the primary providers of maritime training and also conduct national and international campaigns for the recruitment of the right calibre of people for the next generation of ship officers. Any collaboration between MET institutes and shipping industry employers triggers questions on how responsibilities and costs emanating from the redevelopment of curriculums will be met. On the retention side, this study further highlights the need for shipping industry employers to address poor human resource practices such as poaching of ship officers and encourages the need for managers to design and implement a comprehensive succession plan for seafarers. These checklists of activities will eventually result in improvement in retention levels among ship officers and cadets; and lead to a more sustainable career path for seafarers.

Policy wise, government regulations that hinder the effective recruitment, training and retention of ship officers need to be addressed. For instance, it has become necessary to repeal all federal laws underpinning the lack of recognition for the state tickets, naval and other relevant industry experiences of Australian seafarers. This is necessary because such obsolete laws make it difficult for some seafarers who are qualified and competent as deck officers/engineers to work within the Australian shipping industry. Given that certain sectors within the Australian maritime industry receive government funding, the provision of a similar support to employers in the blue water sector of the Australian shipping industry will lead to a more active engagement of the local industry and further improve the training of future ship officers and engineers.

7.4 STUDY LIMITATIONS

It is important that for any given research, the findings are interpreted in connection to the limitations. In this section, the limitations of the current study are discussed from the perspectives of participants, generalisation and methodology.

7.4.1 Participants

One of the key challenges for this study was the difficulty in accessing respondents through the gatekeepers during the web-based survey of ship officers. This challenge is common with previous research that relied on gatekeepers to access respondents (see for example, Gould 2010; Tushman & Katz 1980). In the case of the current study for instance, privacy laws made it cumbersome to gain access to respondents as the gatekeepers had to follow long procedures for the extraction of emails of respondents from their highly restricted respective databases. This can be regarded as one of the key limitations of the current study. There was an initial reluctance from some of the gatekeepers to send out the web-based to the respondents as they feared that it would be viewed by the latter as potentially undermining the confidentiality of their accounts. This caused a delay in the data collection process. Furthermore, the refusal of some of the gatekeepers to send out the web-based survey due to the privacy laws, made it impossible to reach as much ship officers as possible. Also, not all the respondents (seafarers) of the gatekeepers

had email addresses through which they could be contacted to participate in the web-based survey. The difficulty in accessing gatekeepers and lack of email addresses for some of the respondents might have had a negative impact on the response rate for the current study.

Seafaring is a career with peculiar characteristics as seafarers mostly work away from home. As a result, it was not practical to contact them through mail surveys. Using a traditional mail survey could mean that the researcher will have to spend more months in waiting to collect a substantial number of responses from participants. Even with web-based surveys, it takes quite some time as not all seafarers may have access to the needed internet bandwidth to take part in the survey while at sea. Currently, only 43-68 percent of seafarers have access to internet access during their time at sea (ITF 2011; Papachristou, Stantchev & Theotokas 2015). Despite the challenges that were faced with the use of web-based surveys for the current study, the 65 percent response rate is higher than the 57 percent mean response rate given for previous studies using web-based surveys. Given the difficulty in accessing the gatekeepers for the current study, it is suggested that a case study option may yet be a more reliable methodological approach for researchers who have seafarers as their primary respondents. A case study using a shipping company, seafarers union or a ship management firm such as V-Ships, Anglo-Eastern Ship Management or Bibby Ship Management could offer an excellent opportunity to collect data from seafarers with possibly greater ease. Given that the difficulty in negotiating access to seafarers with gatekeepers could account for a low response rate (or slow pace of data collection), convincing one large gatekeeper having access to diverse kind of seafarers (based on nationality, age, gender, salary and rank) could be a better approach. Although case study methodology was considered at the methodology design stage of the current study, the difficulty in getting a gatekeeper in Australia to agree to undertake the study was a key obstacle to opting for it. Also, it is quite difficult to draw quantitative generalisations when the case study approach is used unless there is a very large sample (Yin 2013).

Thus limitations were created for the current study due to the difficulty in accessing participants. Particularly, the initial sources used to collect information on the telephone interview participants proved unreliable as many of the emails and phone numbers were not up to date. Other reliable sources then had to be consulted to ensure validity of the findings. Also, some of the emails of the gatekeepers used during the web-based surveys were returned with 'delivery failure' messages. The decision during the current study to collect data only from seafarers with the most recent experiences and in the blue water sector at sea may largely have led to the exclusion of ship officers working within the oil and gas sector and the port industry of Australia. However, given that the researcher had no direct means of preventing seafarers in the aforementioned categories from participating in the web-based survey, some of the responses reflect the views of ship officers working in such sectors of the Australian shipping industry. Consequently, where future research aims to further probe the HR issues connected to the career of seafarers, data could be collected from the excluded category of seafarers and compare their views with those in the blue water sector. During the interview sessions, it was discovered in some cases that personnel managers are more knowledgeable compared to training/development managers on HR issues. Thus, future research should focus on the former to provide deeper insights into issues connected to the turnover and retention of ship officers.

7.4.2 Generalisability

As only Australian seafarers were included in this thesis utmost care needed to be exercised when attempting to generalise the results to seafarers to other developed maritime nations. For instance, given that this thesis focused on seafarers in the blue water sector of the Australian shipping industry, this criterion needs to be taken into consideration in any comparison of the results to other developed maritime nations. It is however important to note that the key behaviour trends identified among Australian seafarers creates a platform for the initiation, development and execution of comparative studies (in other countries or regions) that may lead to generalisable findings.

It is however important to explain that the findings of this thesis can be generalised at the local level as representative samples were obtained at the two stages of the data collection. For instance, from a population of 2439 ship officers, 305 were sampled for the web-based survey. The total of 305 ship officers is consistent with the target population and sample size table recommended for social science research (Saunders et al 2011). The 20 managers sampled for the telephone interview represents the top 20 employers of seafarers in Australia. Thus, even though the findings for this thesis lacks generalisability at the international level due to the sampling decisions that were taken during the design stage (more details on the sampling decision); it is much representative at the national level. Also, this thesis shares many similarities with previous international studies on the recruitment and retention of seafarers. This lends many aspects of the results of this thesis to generalisation at the international level.

7.4.3 Methodology

Despite the many advantages of the explanatory sequential mixed methods design adopted by this thesis, there are limitations. It is a time consuming research approach (Creswell & Plano-Clark 2011; Creswell 2013) that had to be implemented under a limited time frame; which impacted on the qualitative component of the study as only 12 of the 20 sampled senior managers could respond within the reasonable period permissible for the study. The remaining eight senior managers could not participate in the phone interviews after multiple contacting due to external reasons such as: the busy schedules of managers and organisational policies that prevent some managers from sharing commercial information with researchers. Also, semi-structured telephone interviews were used to collect data for the qualitative data for the study. The use of a face-to-face interview technique could have yielded fresh perspectives and a more complex data compared to the telephone option (Novick 2008; Sturges & Hanrahan 2004). However, the limited time frame within which the current study had to be conducted and the financial expenses associated with face-to-face interviews prohibited the researcher from using such an option for the current study. Another reason why telephone

interviews were preferred to face-to-face interviews is that the sampled population were scattered all over the different states of Australia; requiring airfares and hotel costs. Also, by remaining objective about comments from the interviewees during the telephone interviews, the usual interviewer bias associated with telephone interviews was avoided. Consequently, appropriate steps have been taken to help address the downsides of using telephone interviews for the current study. Finally, telephone interviews still remain a valuable and effective way of collecting data as discussed in Chapter four of the current study.

Limited coverage and the high degree of uncertainty are the key preconceptions commonly associated with web-based surveys (see for example, Gosling et al. 2004). Thus, the use of a web-based survey for the collection of data from ship officers during the current study may be subject to some of these limitations. However, the ability of web-based surveys in reaching a wider population and its suitability when conducting research under a limited time frame made it the most plausible option for the current study. Also, through the adoption of rigorous and systematic traditional survey techniques, the web-based survey was able to equally produce reliable and high quality data for the current study (Ganassali 2008; Muñoz-Leiva et al. 2010). Consequently, a high number of responses occurred as previously discussed in section 7.4.1.

7.5 SUGGESTIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Following a review of the literature and analysis of the collected data, the findings suggest the existence of differences in the expectations of both new generation and old generation ship officers. In addition, if the expectations of seafarers are different from what actually transpires within the shipping industry; this will lead to a breach of the psychological contract. It is therefore proposed that future research focus on the following issues:

- The differences in the working conditions onboard national flags and Flag of convenience vessels (Jensen et al. 2006; Oldenburg, Jensen & Wegner 2012) suggest that future research should empirically investigate possible

differences in retention rates for seafarers between national flags and Flags of Convenience shipowners. One of the objectives of any future research conducted on the working conditions could be to also investigate the current state of employment conditions onboard modern ships.

- Investigate differences in what constitutes a psychological contract breach from the perspective of both ship officers and their employers.
- Identify the extent to which the psychological contract breach during cadet training impacts on attrition among this particular group of seafarers.
- Examine the relationship between the breach of psychological contract, cadet attrition and sustainability of future ship officer supply.
- Investigate the safety and labour sustainability implications of psychological contract breach among seafarers for the shipping industry.
- As a country, Australia faces certain demographic characteristics which influence skills and workforce supply – a small population; and an ageing workforce. Furthermore, it appears the maritime industry in Australia is almost non-existent and the cost of maintaining a significant supply of seafarers in Australia is prohibitive. It is therefore recommended that future research could focus on investigating how these inherent demographic characteristics impact on the reliable supply of skilled maritime labour in Australia.
- Although key aspects of the conceptual model (shown in Figure 3.8) has been analysed during the quantitative component, future research to investigate the causal relations between the individual circumstances and expectations of seafarers and the likely career outcomes (retention or turnover) will further expand knowledge on human resource issues in the shipping industry.
- It is also recommended that future research needs to investigate the convergence model shown in Figure 3.3. The figure suggests that there may be a convergence of internally and externally originating termination factors at a particular point in time in the seafarer's career. This places intense

psychological pressure on the seafarer who may make the decision to voluntarily terminate a *fait accompli*. Particularly, termination is more likely if opportunities in other industries or ashore are easily identified, such as those currently occurring in the mining and offshore oil and gas industries. If this convergence point can be identified, employers can then implement human resource practices to prepare seafarers prior to this point being reached by being much clearer on career progression during performance management, explaining the value of the seafarer to the company, and providing counselling services. A useful starting point for future researchers as per Figure 3.3 may be to investigate the accuracy of research indicating seven years as being an average length of a seafarer's career and thus a major convergence point.

Another possible area of future research is a comparative study where the findings from Australia are compared with that of another developed maritime nation or a developing maritime nation such as the Philippines. Also, with the literature reporting a difficulty in the collection of accurate data on seafarers, future research on how the maritime industry could improve the collection of data on seafarers is inevitable. This is necessary if a better projection of the future supply and demand dynamics of seafarers is to be realised.

Due to the differences in opinion of seafarers and employers on training, future research needs to focus on this area. For instance, future research may need to investigate the differences in views held by seafarers and their employers with regards to the dynamics of training and skill development during the career lifespan of the seafarer.

There appears to be confusion among practitioners and researchers over what constitutes the actual total ship officer deficit within the global shipping industry. A joint collaboration between shipping industry employers and academics for research into the dynamics of the global seafarer labour population could yield a much better understanding of this issue. Overall, industry bodies such as the

International Chamber of Shipping (ICS) could take the initiative through the sponsoring of research that focuses on the global seafaring labour market. Apart from their current involvement in the BIMCO/ICS Manpower Report which is published every five years, any future research of ICS could concentrate on creating a more reliable repertoire of solutions on seafarer employment issues to help address the shortcomings of human resource practices in the shipping industry.

Typically, this thesis contributes to existing knowledge on the retention of seafarers by highlighting the need for a more responsible approach to their recruitment and employment. The application of human resource and marketing models to the retention problem in the Australian context is a new approach. The differences in the view of seafarers and employers on retention, the use of succession planning, mixed methods approach and the introduction of the convergence and seafarer turnover models are key contributions that differentiate this thesis from others.

This thesis has shown that proactive human resource management practices are essential to the development and maintenance of a sustainable seafarer workforce. Also demonstrated is that retention is a key human resource issue for seafarers and in particular for ship officers. Sustaining the availability of ship officers to operate the future global fleet must be embedded in the effective recruitment of seafarers and equally linked to their retention within the shipping industry. From an academic perspective, the results of the current study suggest that the retention of seafarers constitute an important and growing area of research which offers tremendous potential for the future. Also, for managers of seafaring labour the ability to effectively address the varying expectations of their employees is of paramount importance for their successful retention onboard ships. Thus, it is intended that the new viewpoints given by the current study will supplement the growing body of literature on the recruitment and retention of seafarers. Additionally, the results from the current study may further trigger a continued discourse on issues connected to how shipping industry employers can effectively retain the seafarers working onboard their ships.

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APPENDICES

APPENDIX A: THE LIST OF GATEKEEPERS

| | |
|-----|--|
| 1. | Maritime Employees Training Limited (METL) |
| 2. | Maritime Union of Australia (MUA) |
| 3. | Australian Maritime Officers (AMOU) |
| 4. | Australian Shipowners Association (ASA) |
| 5. | Australian Maritime College (AMC) |
| 6. | SeaRoad Shipping Pty Ltd |
| 7. | Teekay Shipping (Australia) Pty Ltd |
| 8. | Van Oord Australia Pty Ltd |
| 9. | Spirit of Tasmania Pty Ltd |
| 10. | Toll ANL Bass Strait Shipping |
| 11. | Shell Australia Pty Ltd |
| 12. | Skilled Offshore (Australia) Pty Ltd |
| 13. | 360group Pty Ltd |
| 14. | Siem Offshore Australia Pty Ltd |
| 15. | Tidewater Marine Australia Pty Ltd |
| 16. | Brisbane Marine Pilots Pty Ltd (BMP) |
| 17. | McGuire Consulting |
| 18. | Farstad Shipping (Indian Pacific) |
| 19. | ASP Ship Management Group |
| 20. | P&O Maritime Services |

WEB SURVEY OF SHIP OFFICERS



MAKING SEAFARING ATTRACTIVE IN AN ERA OF GLOBAL SHORTAGE OF SHIP OFFICERS

LIVINGSTONE DIVINE CAESAR

LETTER OF CONSENT: SHIP OFFICERS/SEAFARERS

Making seafaring attractive in an era of global shortage of ship officers

August, 2014

Dear ship officer/seafarer,

You are invited to participate in this online survey about your experiences as a seafarer. Your input is regarded as highly valuable to this study as it will substantially help towards exploring how seafaring can be made more attractive to improve retention. This research is important as it will help to develop a better understanding of how working conditions at sea may impact on resignation decisions among seafarers.

The study is being conducted by the Australian Maritime College. The questionnaire has five sections, which will take approximately 20 minutes in total to complete. All information collected through this study will be treated confidentially; no respondents or their company will be identifiable in the results. The study is approved by the Tasmanian Human Research Ethics Committee. The approval reference number is **H0014304**.

A summary of the web-based survey results will be provided upon request, which will include the factors given by ship officers as their reasons for moving from sea to landside jobs and the viewpoints of Australian shipping industry employers.

During this online survey, you will be asked questions about the factors that motivated you to become a seafarer, your expectations, working conditions and organisational policies related to seafarer training and retention. Your participation in the online survey is entirely voluntary and there will be no consequences for you if you choose not to participate. You can click the "continue" button **below** to indicate your consent to participate in this study. Thank you for your valuable contribution in advance.

Yours sincerely,

Livingstone Caesar
Researcher,
Maritime and Logistics Management
Department

Dr. Stephen Cahoon
Research Supervisor,
Maritime and Logistics Management
Department

PART A: ENTRY – MOTIVATIONAL FACTORS

In this section, we want to understand the factors that motivated you to choose seafaring as a career and your expectations. Please use the “Not Applicable” option where a question does not apply to you. A “Don’t Know” option is available where you do not know the answer to a particular question.

| A1 To what extent do you agree that the following factors influenced your decision to become a seafarer? | | Strongly agree 5 | Agree 4 | Neither agree nor disagree 3 | Disagree 2 | Strongly Disagree 1 | Not Applicable 0 | Don't Know 00 |
|--|--|--------------------------|--------------------------|---------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| A1.1 | Prospect of earning good salary/wages | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A1.2 | Interest in the lifestyle at sea | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A1.3 | A family tradition | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A1.4 | Influence from parents | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A1.5 | Growing up in a coastal town | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A1.6 | Influence from friends and colleagues | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A1.7 | Availability of career prospects and opportunities for advancement | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A1.8 | Pride and prestige for the position of ship master | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A1.9 | Opportunity to travel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A1.10 | Other | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

A2 What other factors (as chosen in question A1.10) influenced your decision to become a seafarer?

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.....

.....

A3 To what extent do you agree that the following factors make seafaring less attractive to you?

| | | Strongly agree | Agree | Neither agree nor disagree 3 | Disagree | Strongly Disagree | Not Applicable | Don't Know |
|---------------|--|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | 5 | 4 | | 2 | 1 | 0 | 00 |
| A3.1 | Difficult working conditions at sea | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3.2 | Limited opportunities for shore leave | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3.3 | Boring nature of tasks onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3.4 | Long working hours onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3.5 | Criminalisation of seafarers in times of maritime accidents | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3.6 | Long periods of voyage time | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3.7 | Employers not being supportive during times of crisis | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3.8 | Fewer crew onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3.9 | Limited career opportunities for training and promotion | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3.10 | Disruption of sleep onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3. 11 | Piracy | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3. 12 | Poor condition of accommodation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3. 13 | Limited communication facilities onboard (e.g. no internet connection) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3. 14 | Salary payment problems | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A3. 15 | Too much workload | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

A4 Briefly describe the type of communication and internet access you have onboard your ships

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A5 Have there been problems with the payment of salary in your organisation?

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.....

PART B: EXPECTATION OF SEAFARERS

This section examines your expectations before becoming a seafarer. Please use the “Not Applicable” option where a question does not apply to you. A “Don’t Know” option is available where you do not know the answer to a particular question.

| B1 | To what extent do you agree that the following were your key expectations when first becoming a seafarer? | Strongly agree 5 | Agree 4 | Neither agree nor disagree : 3 | Disagree 2 | Strongly Disagree 1 | Not Applicable 0 | Don't Know 00 |
|------|---|--------------------------|--------------------------|-----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| B1.1 | Earn a high salary | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B1.2 | Career growth and progression to the rank of master | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B1.3 | Good working conditions onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B1.4 | Continuous and relatively stable employment contract | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B1.5 | Opportunity to be in contact with family on land while at sea (e.g. by phone and internet) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B1.6 | Career development | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B1.7 | Acquisition of transferable skills onboard to broaden career options | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B1.8 | Experience the available rewards of a seafaring career | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B1.9 | All my key expectations have been met | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

B2 Are there other expectations you believe should have been shown in question B1?

B3 Please explain what influenced your expectations

PART C: EMPLOYEE TRAINING

This section is designed to gather data on how training is undertaken by your employer. Please use the “Not Applicable” option where a question does not apply to you. A “Don’t Know” option is available where you do not know the answer to a particular question.

C1 To what extent do you agree with the following statements about training in your current company?

| | Strongly agree | Agree | Neither agree nor disagree : | Disagree | Strongly Disagree | Not Applicable | Don't Know |
|--|--------------------------|--------------------------|------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 5 | 4 | | 2 | 1 | 0 | 00 |
| C1.1 My employer is committed to my training and development | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C1.2 Lack of onboard training berths for cadets is a problem in my organisation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C1.3 I am satisfied with the current level of training provided to me by my employer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C1.4 There is a clearly defined career path for seafarers in my organisation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

C2 What has been your overall experience of seafarer training with past and present

employers?

PART D: RETENTION OF SEAFARERS - MOBILITY AND TURNOVER

This section is designed to gather data on your personal circumstances and practices (policies) of your employer that may cause you to resign from working onboard a ship or influence you to stay at sea. Please use the “Not Applicable” option where a question does not apply to you. A “Don’t Know” option is available where you do not know the answer to a particular question.

| D1 | How important are the following <i>personal factors</i> for you to continue working as a seafarer onboard ships? | Very Important 5 | Important 4 | Neither Important or Unimportant 3 | Unimportant 2 | Not at all Important 1 | Not Applicable 0 | Don't Know 00 |
|------|--|--------------------------|--------------------------|---------------------------------------|--------------------------|---------------------------|--------------------------|--------------------------|
| D1.1 | Relatively good salary compared to landside jobs | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D1.2 | My ambition to become a ship officer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D1.3 | My ambition to become a ship master | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D1.4 | Opportunity to frequently contact my family on land | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D1.5 | Maintaining the current ratio of voyage to vacation periods | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D1.6 | Good working relationships with my colleagues | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | | |
|-------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | onboard | | | | | | | |
| D1.7 | Good working relationships with my superiors onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D1.8 | Feeling of being valued by my employer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D1.9 | Having a permanent employment contract | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

D2 How important are the following *organisational factors* for you to continue working as a seafarer onboard ships?

| | Very Important | Important | Neither Important or Unimportant | Unimportant | Not at all Important | Not Applicable | Don't Know |
|-------------|---|--------------------------|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 5 | 4 | 3 | 2 | 1 | 0 | 00 |
| D2.1 | Family policies (e.g. medical insurance) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D2.2 | Provision of recreational facilities onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D2.3 | Supportive organisational culture | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D2.4 | Good working conditions onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D2.5 | Good mentorship from superiors onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D2.6 | Occasional access to shore leave | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D2.7 | Opportunities for training to become a ship officer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

D3 What recreational facilities are provided onboard the ships in your organisation?

D4 Please explain how the work and vacation periods operate in your organisation

D5 Please indicate if you agree with the following statements about communication technology and other opportunities provided by your current employer?

| | | Yes | No |
|-------------|--|--|--|
| D5.1 | There is access to FREE internet and communication facilities onboard | <input type="checkbox"/> ₀₁ | <input type="checkbox"/> ₀₂ |
| D5.2 | There is access to SUBSIDISED internet and communication facilities onboard | <input type="checkbox"/> ₀₁ | <input type="checkbox"/> ₀₂ |
| D5.3 | There is access to PAID internet and communication facilities onboard | <input type="checkbox"/> ₀₁ | <input type="checkbox"/> ₀₂ |
| D5.4 | Fair opportunities exist for career progression to officer positions onboard | <input type="checkbox"/> ₀₁ | <input type="checkbox"/> ₀₂ |
| D5.5 | There is good mentorship onboard from superiors | <input type="checkbox"/> ₀₁ | <input type="checkbox"/> ₀₂ |

Some factors related to the individual seafarer, the employer and the economic environment may cause seafarers to move from the ship to landside jobs. This section focuses on understanding the factors that may influence you to move to a landside job. Please use the “Not Applicable” option where a question does not apply to you. A “Don’t Know” option is available where you do not know the answer to a particular question.

| | | | | | | | | |
|------|--|--------------------------|--------------------------|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| D6 | How important are the following <i>individual factors</i> in influencing your decision to move from sea to a landside job? | | | | | | | |
| | INDIVIDUAL FACTORS | Very Important | Important | Neither Important or Unimportant | Unimportant | Not at all Important | Not Applicable | Don't Know |
| | | 5 | 4 | 3 | 2 | 1 | 0 | 00 |
| D6.1 | To live in a relationship | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D6.2 | Desire to start a family | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D6.3 | To care for aging parents | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D6.4 | Family stress | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D6.5 | Financial stress | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D6.6 | My age | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D6.7 | Desire to work on land | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D6.8 | Personal health issues (e.g. body pains) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | | |
|------|---|--------------------------|--------------------------|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| D7 | How important are the following <i>organisational factors</i> likely in influencing your decision to move from sea to landside job as a seafarer? | | | | | | | |
| | ORGANISATIONAL FACTORS | Very Important | Important | Neither Important or Unimportant | Unimportant | Not at all Important | Not Applicable | Don't Know |
| | | 5 | 4 | 3 | 2 | 1 | 0 | 00 |
| D7.1 | Poor working conditions onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D7.2 | Lack of new and fresh challenges | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D7.3 | Neglect by employer when ship is arrested | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D7.4 | Lack of opportunities for training | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D7.5 | Lack of opportunities for progression to higher ranks onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D7.6 | Continual refusal of shore leave | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | | |
|--------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | during port hours | | | | | | | |
| D7.7 | Lack of recreational facilities onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D7.8 | Dissatisfaction with the employer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D7.9 | Lack of a supportive organisational culture | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D7.10 | Bullying from superiors or workmates onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D7.11 | Inability to contact family from sea | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D7.12 | Poor mentoring from superiors onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| D8 | How important are the following <i>industry factors</i> likely in influencing your decision to move from sea to a landside job as a seafarer? | | | | | | | |
|-------------|---|--------------------------|--------------------------|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | INDUSTRY FACTORS | Very Important | Important | Neither Important or Unimportant | Unimportant | Not at all Important | Not Applicable | Don't Know |
| | | 5 | 4 | 3 | 2 | 1 | 0 | 00 |
| D8.1 | Jailing of seafarers for operational error | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.2 | Fear of being captured by pirates at sea | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.3 | Small crew size onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.4 | Too much paperwork to be done per voyage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.5 | Loneliness while at sea | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.6 | Short-term work contracts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.7 | Onboard fatigue | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.8 | Cultural | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | | |
|--------------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | differences among crew members onboard | | | | | | | |
| D8.9 | Lack of adequate rest | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.10 | Staying long time at sea away from family | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.11 | Too much workload onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.12 | Fear of being injured onboard during cargo operations | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.13 | Loss of job through cuts by employer during times of financial crisis | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.14 | Availability of job opportunities on land | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.15 | Poor workplace practices onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D8.16 | Retirement of older colleagues | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

We are almost at the end of this survey. Organisations use reward systems to motivate employees. Extrinsic factors are reward systems which are external to the employee. We want to understand how the following extrinsic reward systems will influence your desire to resign from working onboard a ship. Please use the “Not Applicable” option where a question does not apply to you. A “Don’t Know” option is available where you do not know the answer to a particular question.

| | | | | | | | | |
|--------------------------|--|------------------|---|--------------------|-----------------------------|-----------------------|-------------------|--|
| D9 | How important are the following <i>extrinsic factors</i> likely in influencing your decision to move from sea to a landside job as a seafarer? | | | | | | | |
| EXTRINSIC FACTORS | Very Important | Important | Neither Important or Unimportant | Unimportant | Not at all Important | Not Applicable | Don't Know | |
| | | 4 | | 2 | | | | |

| | | 5 | 3 | 1 | 0 | 00 |
|--------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| D9.1 | Late payment of salary | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D9.2 | Lack of recognition from superiors onboard for my efforts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D9.3 | Salary not increasing within an expected period | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D9.4 | Persistent failure of employer to pay salary due to financial problems | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D9.5 | Lack of long service bonuses | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D9.6 | Problems with being granted sick leave | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D9.7 | Setting of performance goals by the employer for staff onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D9.8 | Lack of compensation schemes | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D9.9 | Poor food onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D9.10 | Limited leisure time onboard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

D10 What has been your overall experience working onboard as a seafarer?

.....

.....

.....

.....

PART E: DEMOGRAPHIC QUESTIONS

This is the final section of this survey. Thank you for your patience. The details collected in this section will help develop a profile of the respondents participating

in this survey. Please answer questions as they relate to you. For most answers, check the box most applicable to you.

E1 Please indicate the category that best describes you:

Cadet..... ☐_01 Integrated Rating..... ☐_02 Officer..... ☐_03 Master..... ☐_04

E2 Please indicate in which department you are currently working:

Deck..... ☐_01 Engine..... ☐_02 Other..... ☐_03 Please specify.....

E3 How many years of experience do you have at sea?

5yrs or less..... ☐_01 6-10yrs..... ☐_02 11-20yrs..... ☐_03 Over 20 yrs..... ☐_04

E4 Please indicate at what age range you decided to become a seafarer?

15-20yrs..... ☐_01 21-26yrs..... ☐_02 27-32yrs..... ☐_03 33-38yrs..... ☐_04 39-45yrs..... ☐_05

E5 How long in total do you intend working in the shipping industry as a seafarer?

5yrs or less..... ☐_01 6-10yrs..... ☐_02 11-20yrs..... ☐_03 lifetime..... ☐_04

E6 My gender is:

Male..... ☐_01 Female..... ☐_02

E7 Which of the following age groups applies to you (tick only one box):

18-33yrs..... ☐_01 34-46yrs..... ☐_02 47-65yrs..... ☐_03 over 65yrs..... ☐_04

E8 I am directly employed by a:

Shipping company..... ☐_01 Manning company..... ☐_02 Ship managing company...☐_03

E9

I am:

Married..... ☐₀₁ Single..... ☐₀₂ Divorced/separated..... ☐₀₃ In a relationship..... ☐₀₄

A summary of the web-based survey results will be provided upon request, which will include the viewpoint of other ship officers. If you would like to receive a copy of the summary of this report, please provide your email address (this will be kept confidential).

Email address: _____

THANK YOU FOR PARTICIPATING

APPENDIX C: PRE-TESTING LETTER

Locked Bag 1397
Launceston Tasmania 7250 Australia
www.amc.edu.au
Mobile phone: 0469340820
Email: dlcaesar@amc.edu.au



<<Date>>

<<Title>><<First Name>><<Last Name>>

Re: Pretest: Web-based survey and telephone interview instrument ‘*Making Seafaring Attractive in an Era of Global Shortage of Ship Officers*’.

Dear <<Last Name>>

I would like to invite you to participate in the pretesting of the web-based survey and telephone interview instrument for my PhD study. I am a PhD candidate at the Department of Maritime and Logistics Management, the Australian Maritime College, University of Tasmania (UTAS). Your comments will significantly assist in improving the quality of these two data collection instruments.

Please pre-test the following attached documents:

- Advance Letter for Shipping Companies
- Confirmatory letter (to be used when making appointments with respondents for telephone interviews)
- Participant Consent Form
- Telephone interview questionnaire labelled “confidential”
- Web-based survey instrument
- Sample reminder to be sent to sample population
- Letter to gatekeepers
- Participant Information Sheet (as required by the Ethics Committee)

The key objectives of this PhD research are to explore the key factors predicting mobility to landside jobs among ship officers, gather in depth understanding of the attrition process among seafarers and investigate the retention strategies among shipping industry employers in Australia. A potential outcome of this research is the design of a workable human resource model that could help address the complex range of retention issues negatively affecting the availability of ship officers for Australian and international shipping industry employers.

Thus, the primary research question to be explored by the study is:

How can shipping industry employers improve the retention of ship officers?

The three secondary research questions are as follows:

- *What factors determine the movement of ship officers from ships to shore-based jobs?*
- *What are the major causes of the industry-wide shortage of ship officers?*
- *What are the measures being used by shipping industry employers to address the shortage of ship officers and what is the effect on retention levels?*

The web-based survey will be sent to ship officers in Australia through identified gatekeepers (by email) who have direct contact with the target population. The gatekeepers include but are not limited to managers of shipping companies, seafarer labour unions and other stakeholders who interact with seafarers in Australia. A phone interview of Australian shipping industry employers will be conducted after the web-based survey.

The process for conducting the interview is:

- An Advance Letter will be sent to senior managers of selected organisations in the Australian shipping industry. The purpose of this letter is to invite them to participate in the study, prompt them of the importance of the study and inform them that I will be following up with a telephone call.
- The Participant Information Sheet and Consent form will be sent together with the Advance Letter to potential respondents.
- Each of the potential respondents will be called to arrange a time to conduct the telephone interview. In some cases, the interview may be conducted at the time or a later agreed time. The confirmatory document will be used during this stage.
- Prior to beginning the telephone interview, respondents will be asked for permission to record the interview. Recording will enable an accurate account of issues discussed and assist with the error control process.
- The respondent will not receive a copy of the semi-structured telephone interview instrument.
- Any sentences in italics within the telephone interview instrument are prompts for the interviewer.

-
- Any text highlighted in yellow or shaded indicates changes are yet to be made.
 - The researcher will make all the phone calls and conduct the telephone interviews.

Please feel free to make any comments and corrections directly on the web-based survey and telephone interview questionnaire or send me an email if you prefer. If you have any questions when working through this telephone interview questionnaire, you can send an email to dlcaesar@amc.edu.au. It would greatly be appreciated if you could complete all the attached documents and **return them by 12:00 noon on Thursday 31 July 2014**. Please **send them to the email shown above** or **place them in the pigeon hole** for PhD students at the **Distance Education Office** of the MLM Department.

Please feel free to provide your comments anywhere in the white spaces of the questionnaire and on this cover page. The key guidelines provided on the next page may be useful when undertaking the pre-testing.

Thank you for assisting to improve the quality of the data collection related documents for this important study.

Kind regards,

Livingstone D. Caesar

Questions/issues for pre-testing the web-based survey, telephone interview questionnaire and all other attached documents

Comments arising from your evaluation will be used to improve the questionnaire. Potential issues have been divided into three categories.

A. Layout

1. Does the layout of the questionnaire make it easy to read (for example font size and line spacing)?
2. Do the question numbers flow in a chronological order?
3. Are the questions in a logical order?
4. Will the layout of the document make it easy for the interviewer to use?
5. Are the transitions between sections smooth?
6. Are all the instructions clear and noticeable for the interviewer?
7. Are there any spelling and grammatical errors?

B. Completing the questionnaire

1. How long did the questionnaire take to read through?
2. Are any of the questions unclear or ambiguous?
3. Are any questions difficult to answer?

-
4. Did you object to answering any of the questions?
 5. Is the language appropriate for the proposed sample?
 6. Are any of the questions showing bias?

C. Purpose of the questionnaire

1. Did you consider that any major topics had been omitted?
2. Are any of the questions irrelevant that should therefore be omitted?
3. Did you understand the focus of the questionnaire?
4. Are there any other issues you'd like to comment on?

Source: Cahoon (2004, p.454)

APPENDIX D: TELEPHONE INTERVIEW INSTRUMENT

Australian Maritime College
Locked Bag 1397
Launceston 7250
Tasmania

CONFIDENTIAL

2014 National Study

**Making Seafaring Attractive in an Era of Global Shortage of
Ship Officers**

(FOR MANAGERS OF SHIPPING COMPANIES)

Code number -----

Date of interview-----/-----/2014

Time interview started -----am/pm

Time interview ended -----am/pm

Total length of interview -----minutes

INTRODUCTION

Good morning/afternoon Mr/Mrs_____, I am Livingstone Caesar calling from the Australian Maritime College about the study on understanding the attrition process among ship officers and the retention strategies of shipping industry employers in Australia. *[pause for response]*

I sent a participant consent form and information sheet to you in an email. At an earlier time, you indicated that you would be willing to participate in an interview now.

Is this still a convenient time for you?

Better time

I am able to arrange a more convenient time to do this interview. Otherwise, is it possible for you to recommend another person in your organisation to have the interview done?

Recording the interview

Before we begin, can you consent to the recording of this interview? This will help ensure accuracy of the proceedings.

Are you able to continue?

Begin interview

Good. Then we will commence the interview with a set of questions on the recruiting and training of seafarers in your organisation.

☐ Yes go to "Recording the interview"

☐ No go to "Better time"

☐ Yes schedule appointment or contact recommended person

☐ No thank you for your time

☐ Yes go to begin interview

☐ No explain the significance of recording to achieve accuracy. Prompt respondent concerning how recording will enable correct interpretation of results and that transcripts could be sent to them to confirm the exactness of the recording before data processing. Also assure respondent that all data will be safely kept and destroyed after five years.

SECTION A. Recruitment and training of seafarers

I would like to begin by asking you questions about how your organisation recruits seafarers, the challenges you are facing and the hiring policies in general.

A.1

Can you tell me about your experience of managing seafarers and the nature of your role in this organisation?

A.2

How many seafarers are in your organisation?

A.3

What processes are used to recruit your seafarers?

A.4

How often is the recruitment done and how many seafarers do you recruit each time?

A.5

What criteria does your organisation use to employ seafarers?

A.6

What expectations do new recruits have at the time of hiring about their seafaring career?

A.7

How different are these expectations from the realities of the job?

A.8

How do you think new recruits view your organisation?

A.9 What types of training are provided to seafarers onboard your ships?

A.10 What percentage of crew onboard your ships are women?

A.11 Can you explain how seafarers are employed by your organisation, for example are short term contracts used?

SECTION B. Attraction strategy

Now, I would like to ask you about the strategies used by your organisation to attract seafarers.

B.1 How successful is your organisation in terms of attracting seafarers to work onboard your ships?

B.2 What strategies are used by your organisation to attract seafarers?

B.3 Has your organisation been facing any challenges with regards to attracting seafarers to work onboard your ships?

B.4 If there are any challenges, how are they being addressed?

B.5 What are the most important factors that attract seafarers to your organisation?

B.6 Are there any areas you believe need to be improved to attract seafarers to your organisation?

SECTION C. Retention of seafarers

The next set of questions relate to the retention of seafarers in your organisation. I would like to ask you about the conditions onboard your ships, reasons why seafarers may leave your organisation and the strategies being used to retain them.

C.1 To what extent is the ship officer shortage an issue of concern to your organisation?

C.2 What are the key reasons for the shortage of ship officers in the shipping industry?

C.3 What effect or constraint has the ship officer shortage had on your organisation?

-
- C.4 What strategies are you using to avoid a shortage of ship officers onboard your ships?
-
-
-
- C.5 Could you explain whether staff retention is a human resource challenge in your organisation?
-
-
-
- C.6 What is the turnover rate of ship officers in your organisation?
-
-
-
- C.7 What reasons are usually given by ship officers when they leave your organisation?
-
-
-
- C.8 In your opinion what issues are of greatest concern to your seafarers regarding their jobs onboard?
-
-
-
- C.9 Could you explain whether there are any challenges for your organisation regarding the management of multicultural crew onboard your ships?
-
-
-
- C.10 What strategies has your company instituted to improve retention among ship officers working onboard your ships?
-
-
-
- C.11 Are these strategies effective? Why?
-

C.12 What steps has your organisation taken to improve working conditions onboard for your seafarers in general?

C.13 How do you assess whether your seafarers are satisfied with their jobs?

C.14 Do you have a system through which feedback can be obtained from seafarers working onboard your ships?

C.15 Can you please describe the career path available for the seafarers employed in your organisation?

C.16 Can you explain any circumstances in which you would not want to retain ship officers in your organisation?

SECTION D. Closing statement and question

D.1 That completes the questions for our interview. Do you have other comments that you would like to make concerning the hiring and retention of seafarers in your organisation?

D.2 Finally, do you have any general comments you would like to make?

A summary of the phone interview results will be provided upon request. The summary will also include the viewpoints of other Australian shipping industry employers. If you would like to receive a copy of the summary of this report, please provide your email address (this will be kept confidential).

Email address: _____

THANK YOU FOR YOUR PARTICIPATION

APPENDIX E: SAMPLE WEB-BASED SURVEY PARTICIPANT REMINDER LETTER

Locked Bag 1397
Launceston Tasmania 7250 Australia
www.amc.edu.au
Mobile phone: 0469340820
Email: dlcaesar@amc.edu.au



SAMPLE REMINDER TO BE SENT TO SAMPLE POPULATION

Dear ship officer/seafarer,

Two weeks ago you received an e-mail message asking for your participation in an online survey about your experiences as a ship officer. This message has gone to everyone in the selected sample population. Since no personal data is retained with the surveys for reasons of confidentiality, we are unable to identify whether or not you have already completed the survey. If you have already completed the survey, thank you for your contribution. If you would still like to participate, the link to the survey is provided below.

Your input will generate a better understanding of the working aspirations of ship officers. This will help shipping industry employers to introduce human resource policies that can improve working conditions onboard ships. We have attached the participant information sheet for your perusal.

A summary of the web-based survey results will be provided upon request, which will include the factors given by your colleague ship officers as their reasons for moving from sea to landside jobs and the viewpoints of Australian shipping industry employers. Your input is regarded as highly valuable to this study as it will substantially help towards exploring how seafaring can be made more attractive to improve retention.

This research is important as it will also help to develop a better understanding of how working conditions at sea may impact on turnover decisions among ship officers. The study is being conducted by the Australian Maritime College. The questionnaire has five sections, which will take approximately 20 minutes in total to complete. The study has been approved by the Tasmanian Human Research Ethics Committee.

You can click on: https://www.surveymonkey.com/s/seafarers_and_ship_officers to indicate your consent to participate in this study.

Thanks for your valuable contribution in advance.

Best regards,

Yours sincerely,

Livingstone D. Caesar
Researcher
Department of Maritime and
Logistics Management

Dr. Stephen Cahoon
Research Supervisor,
Department of Maritime and
Logistics Management

APPENDIX F: ADVANCE LETTER FOR SHIPPING COMPANIES

Locked Bag 1397
Launceston Tasmania 7250 Australia
www.amc.edu.au
Mobile phone: 0469340820
Email: dlcaesar@amc.edu.au



<<Date>>

ADVANCE LETTER FOR SHIPPING COMPANIES [not shown on document to respondents]

<<Title>><<First Name>><<Last Name>>

<<Job Title>>

<<Organisation >>

<<Address>>

<<City>>

<<State>><<Post Code>>

Dear <<Title>><<Last Name>>

Re: Research study '*Making Seafaring Attractive in an Era of Global Shortage of Ship Officers*'.

We are writing to invite your participation in an important study on improving retention among ship officers being conducted by the Department of Maritime and Logistics Management at the Australian Maritime College, University of Tasmania. This study aims to identify the key human resource practices and policies that make it difficult for seafarers to be retained on board ships. The study has been approved by the Tasmanian Social Science Human Research Ethics Committee.

As part of a selected sample of professionals, experts and key stakeholders in the Australian shipping industry, you have been identified as someone whose experience and opinion will make a valuable contribution to the study. The input from yourself and other participants will be beneficial in exploring effective strategies for the retention of ship officers whose shortage is a source of concern to industry employers. A web-based survey of ship officers has already been completed (with 185 responses received). The telephone interviews with industry managers (second phase) is aimed at further explaining the results from the perspective of the employer.

A summary of the telephone interview results will be provided upon request. The summary will include the issues identified as being effective for talent retention at sea. This study will help identify HR practices among shipping industry employers that could be addressed to improve retention. The study involves a confidential telephone interview. We anticipate the interview will take approximately 30 minutes and it can be arranged to fit within your schedule. All information collected through this study will be treated confidentially and neither you nor your organisation will be identifiable in the results.

We have attached the *Participant Information Sheet* and the *Participant Consent Form* for your perusal to assist with preparation for the interview. Within the next week you will be

contacted by telephone to ask if you are willing to participate in this major study. If you have any questions, please do not hesitate to contact us by email or telephone through the contact information provided on the top left of this page.

Yours sincerely,

Livingstone D. Caesar
Researcher
Department of Maritime and
Logistics Management

Dr. Stephen Cahoon
Research Supervisor,
Department of Maritime and
Logistics Management

APPENDIX G: CONFIRMATORY TELEPHONE INTERVIEW INSTRUMENT
CONFIRMATORY LETTER

TELEPHONE LOG Date 1: ____/____/____
2014
Respondent's Name : _____ Time1: _____ am /pm
Position : Date 2: ____/____/____
_____ 2014
Company : _____ Time2: _____ am /pm
Telephone : Date 3: ____/____/____
_____ 2014
Email : _____ Time3: _____ am /pm

Good morning/afternoon Mr/Mrs_____, I am Livingstone Caesar from the Australian Maritime College. Recently, I sent you a letter in relation to research being conducted on understanding the attrition process among ship officers and the retention strategies of shipping industry employers in Australia. I am calling you to ask whether you are willing to participate in this important study. Other professionals who form part of the Australian Shipowners Association (ASA) are also being invited. Your contribution is valuable to this major study as it will provide important insights into effective strategies for the retention of ship officers whose shortage is a source of concern to industry employers. *[Pause and wait for response]*

In appreciation of your participation in this study, a summary report will be provided to you upon request. The summary will include the range of issues influencing the high attrition rate among ship officers and recommends strategies that may be useful for your company's human resource policy. The study will be conducted by an interview over the telephone. The interview consists of a number of questions relating to hiring and retaining of seafarers and your organisation's experience in responding to the shortage of ship officers. If you are interested in

participating in this study we can start the interview now or we can plan another convenient time for me to call you back.

Are you interested in participating in this important study?

[Pause and wait for response]

| | |
|--|--|
| If respondent says YES | Then go to Questionnaire material |
| If respondent asks to arrange other time | If respondent says NO |
| <p>1. When would be a better time for you?</p> <p>Date : _____</p> <p>Respondent's time : _____</p> <p>My time: _____</p> | <p>1. Is there anyone else in your organisation that may be interested in participating in this study?</p> <p>YES</p> <p>Name: _____</p> <p>Telephone: _____</p> <p>Email: _____</p> <p>NO Go to Declaration B</p> |
| <p>DECLARATION A</p> <p>Thank you for your valuable time in assisting me in this study. I will contact you again on <i>[mentioned agreed date and time above no.1]</i></p> | <p>DECLARATION B</p> <p>Thank you for your time</p> |

APPENDIX H: PARTICIPANT CONSENT FORM: MANAGERS OF SHIPPING COMPANIES

Locked Bag 1397
Launceston Tasmania 7250 Australia
www.amc.edu.au
Mobile phone: 0469340820
Email: dlcaesar@amc.edu.au



PARTICIPANT CONSENT FORM

TELEPHONE INTERVIEW: MANAGERS OF SHIPPING COMPANIES

Making Seafaring Attractive in an Era of Global Shortage of Ship Officers

By signing this form, I agree to the following:

1. I agree to take part in the research study named above.
2. I have read and understood the 'Information Sheet' for this study.
3. The nature and possible effects of the study have been explained to me.
4. I understand that the study involves me taking part in an audio recorded telephone interview (~ 30 minutes duration) on the attrition process among ship officers as well as the retention strategies of shipping industry employers. I also understand that I will have the option of reviewing the transcripts from the recorded telephone interview.
5. I understand that participation in this study involves no risk.
6. I understand that all research data (recordings and transcripts) will be securely stored at the Australian Maritime College, University of Tasmania premises for five years from the publication of the study results, and will then be destroyed.
7. Any questions that I have asked have been answered to my satisfaction.
8. I understand that the researcher(s) will maintain confidentiality and that any information I supply to the researcher(s) will be used only for the purposes of the research.
9. I understand that the results of the study will be published so that I cannot be identified as a participant.
10. I understand that my participation is voluntary and that I may withdraw at any time without any effect, and if I so wish may request that any data I have supplied to date be withdrawn from the research.

If you wish to take part in the research study, please sign the attached consent form and send it back to the researcher by the dlcaesar@amc.edu.au.

Participant's name:

Participant's signature:

Date: _____

Statement by Investigator

☐

I have explained the project and the implications of participation to this volunteer and I believe that the consent is informed and that he/she understands the implications of participation.

If the Investigator has not had an opportunity to talk to participants prior to them participating, the following must be ticked.

☐

The participant has received the Information Sheet where my details have been provided so participants have had the opportunity to contact me prior to consenting to participate in this project.

Investigator's name: ____Livingstone Divine Caesar____

Investigator's signature:

Date: _____

APPENDIX I: PARTICIPANT INFORMATION SHEET: MANAGERS OF SHIPPING COMPANIES

Locked Bag 1397
Launceston Tasmania 7250 Australia
www.amc.edu.au
Mobile phone: 0469340820
Email: dlcaesar@amc.edu.au



PARTICIPANT INFORMATION SHEET: SHIPPING COMPANIES

Making Seafaring Attractive in an Era of Global Shortage of Ship Officers

Invitation

You are invited to participate in a research study investigating how to improve retention among ship officers. This study is being conducted in partial fulfilment of a Doctor of Philosophy degree. The study will involve participating in a telephone interview where you will be asked a series of questions about your company's involvement in the recruitment and retention of seafarers. All information obtained will be treated confidentially and anonymously.

The study is being conducted by Livingstone Divine Caesar, a PhD candidate supervised by Dr Stephen Cahoon and Dr Jiangang Fei, from the Department of Maritime and Logistics Management, Australia Maritime College at the University of Tasmania.

What is the purpose of this study?

The purpose of this study is to identify the key issues that make it difficult for seafarers to work onboard ships. The findings made from this study will assist Australian shipping industry employers to implement policies to improve the working condition of seafarers.

Why have I been invited to participate?

As part of a selected sample of professionals, experts and key stakeholders in the Australian shipping industry, you have been identified as someone whose experience and opinion would be a valuable contribution to the study. The input from yourself and other participants will be beneficial in exploring effective strategies for the retention of ship officers whose shortage is a source of concern to industry employers.

It is important to understand that your involvement in this study is voluntary. While we would be pleased to have you participate, we respect your right to decline. There will be no consequences to you should you decide not to participate. Also, there are no specific risks anticipated with participation in this study. However, if you find any part of the study distressing please inform us.

What will I be asked to do?

In this study you will be asked to provide your views in a telephone interview on the current human resource practices among shipping industry employers in Australia to explore effective retention strategies for ship officers onboard ships. The telephone interview will take about 30 minutes. In order to ensure accuracy and avoid the risk of inaccurate interpretation, the responses will be audio recorded with your consent and permission. The recordings will not be used for any other purpose except for transcription comments. Furthermore, please be assured that all responses will only be used for research purposes and will not be attributed to the name of any participant or organisation.

Are there any possible benefits from participation in this study?

The study has policy implications for shipping companies with regards to the recruitment and retention of ship officers by identifying existing human resource practices of industry employers. The information you provide in this study will lead to a better understanding of work-related challenges that needs addressing by shipping industry employers to prolong the number of years that seafarers spend working at sea.

The feedback you provide about the human resource practices and strategies among shipping industry employers in Australia will also help to develop a checklist for managers and policy makers who are directly and indirectly connected to the recruiting and retaining of ship officers.

Are there any possible risks from participation in this study?

There are no foreseeable specific risks associated with your participation in this study.

What if I change my mind during or after the study?

If you decide to discontinue your participation in this study at any time, you may do so without providing an explanation. You may also, if you so wish, at this time, ask that any data you have provided to date be removed from the study.

What will happen to the information when this study is over?

All audio recordings and transcripts from the telephone interview including any hard copies of transcripts will be stored on the Launceston campus of the Australian Maritime College, University of Tasmania in locked cabinets accessible only by the researchers.

Computer files will be password protected and stored on a secure server in the National Centre for Ports and Shipping (NCPS), Australian Maritime College. Five years after publication of the report of the project all transcripts and field notes will be shredded, computer files deleted and audio recordings deleted. All information collected will be treated confidentially by the researchers.

How will the results of the study be published?

This study constitutes the source of primary information and data for the student investigator's doctoral thesis. A summary of the study results could be provided to participants upon request. Also, the findings from this study will be published through a variety of conference papers and journal articles.

Please understand that participants will not in any way be identified in the publication of the results of this study.

What if I have questions about this study?

If you would like to discuss any aspect of this study please contact the student investigator or the chief investigator(s):

Student Investigator:

Livingstone Divine Caesar, PhD Candidate
Department of Maritime and Logistics
Management, Ph.: 0469340820 Email:
dlcaesar@amc.edu.au

Chief Investigator:

Dr. Stephen Cahoon, Senior Lecturer
Department of Maritime and Logistics
Management, Ph.: 03 6324 9694 Email:
s.cahoon@amc.edu.au

Chief Investigator:

Dr. JiangangFei, Lecturer
Department of Maritime and Logistics
Management, Ph.: 03 6324 9877 Email:
j.fei@amc.edu.au

You are welcome to contact us to discuss any issue relating to the research study.

This study has been approved by the Tasmanian Social Sciences Human Research Ethics Committee. If you have concerns or complaints about the conduct of this study, please contact the Executive Officer of the HREC (Tasmania) Network on 03 6226 7479 or email human.ethics@utas.edu.au. The Executive Officer is the person nominated to receive complaints from research participants. Please quote ethics reference number H0014304.

Thank you for taking the time to consider this study. If you wish to take part in it, please sign the attached consent form. This information sheet is for you to keep.

APPENDIX J: LETTER TO GATEKEEPERS

Locked Bag 1397
Launceston Tasmania 7250 Australia
Phone + 61 469340820
Email: dlcaesar@amc.edu.au



<<Date>>

LETTER TO GATEKEEPERS [not shown on document to gatekeepers]

<<Title>><<First Name>><<Last Name>>

<<Job Title>>

<<Organisation >>

<<Address>>

<<City>>

<<State>><<Post Code>>

Dear <<Title>><<Last Name>>

Re: Making seafaring attractive in an era of global shortage of ship officers

We are writing to request your support for an important study on seafaring. It is being conducted by the Australian Maritime College, a specialised institute of the University of Tasmania. This study aims to investigate how shipping industry employers in Australia can improve retention of ship officers. The study is being conducted in fulfilment of a Doctor of Philosophy degree for Livingstone Caesar. It has been approved by the Tasmanian Social Science Human Research Ethics Committee. The approval reference number is **H0014304**.

As part of a selected sample of stakeholders within the Australian shipping industry, your organisation connects to and interacts with ship officers and will make a valuable contribution to gather relevant data for the study. Your help is being requested to forward the data collection instrument for this study to ship officers under your jurisdiction.

A summary of the web-based survey results will be provided upon request, which will include the factors given by ship officers as their reasons for moving from sea to landside jobs and the viewpoints of Australian shipping industry employers. To fulfil the purpose of this study, a Survey Monkey online questionnaire has been designed for ship officers to complete. This can be viewed at https://www.surveymonkey.com/s/seafarers_and_ship_officers.

A participant consent page is attached to the online survey. Ship officers have been identified as people whose experience and opinion would be a valuable contribution to the study. The input from them will substantially help towards exploring how seafaring can be made more attractive to improve retention.

The questionnaire has five sections, which will take approximately 20 minutes in total to complete. All information collected through this study will be treated confidentially; no respondents or their company will be identifiable in the results.

Should you have further questions or require additional information, please do not hesitate to contact Mr Livingstone Caesar (phone: 0469340820 or email dlcaesar@amc.edu.au). You can also contact Dr. Stephen Cahoon (email S.Cahoon@amc.edu.au).

Thank you for your favourable response in advance.

Yours sincerely,

Livingstone D. Caesar
Researcher
Department of Maritime and
Logistics Management

Dr. Stephen Cahoon
Research Supervisor,
Department of Maritime and
Logistics Management

APPENDIX K: ANALYSIS OF SEAFARER EXPECTATIONS

| Expectations | Practices/Status |
|---|---|
| B1.1 Earn a high salary | <p>The Australian shipping industry is noted for one of the highest salary scales among the community of developed maritime nations. This is partly due to the stern competition for ship officers between the blue water sector and the oil and gas section of the industry. The respondents (90%) indicated that they were very much satisfied with their salaries. Also, 98% of respondents agreed that they have not encountered any salary or payment-related problems with their present and past organisations. However one respondent explained how some of the lapses within the Australian tax regime for seafarers are scuttling their efforts to gain work experience on international ships.</p> <p><i>“My expectation when I first considered going to sea was that I would obtain a ticket to sail as an officer on ships traveling internationally. The nature of the Australian industry is that we do not get the opportunity to leave Australia unless we are willing to sacrifice pay to put ours in line with international wages. This would not be a problem if Australian seafarers were given tax breaks as is the standard for most counties. (Seafarers are taxed based on days spent within their home country). Australia taxes income regardless, making it unrealistic to consider working on foreign flagged vessels”</i></p> |
| B1.2 Career growth and progression to the rank of master | <p>Although the respondents (98%) agreed that their organisations had a laid down career path, the challenge was often with its implementation as it took longer time for people to move from one rank to another. These responses echo the general perception among the respondents.</p> <p><i>“Actually I would say more problems with the grading in my organisation seem to be a problem. I have been a master for over 2 years and still graded C/O [Chief Officer]. Same problem with the C/O [Chief Officer], 2/O [2nd Officer] ranks. The company is also utilising long term secondments of personnel for company gain - causing congestion on the team that is working on the ship”</i></p> <p>For reasons relating to prestige and abuse of the right of ship masters, some respondents felt reluctant to aspire for the position of a master. As one respondent stated:</p> <p><i>“Master's position apart from responsibilities, should bear some dignity (as it was in the past). However, this is not the case anymore”</i></p> |
| B1.3 Good working conditions onboard | <p>Most of the respondents (98%) expressed satisfaction with the working conditions onboard the ships in their organisations. However, an equally contentious issue was the nature of relationship between officers at sea and those who manage operations from the landside. As one respondent puts it:</p> |

| | |
|--|---|
| | <p><i>"Policy and decisions made on maritime operations are made by non-maritime people, without the understanding of maritime operations, or how their decision influences it. Quite often land side policies & procedures are not easily implemented into a maritime environment, or suitable. I highly recommend a marine superintendent should also be involved and sign off on these matters, defend masters decisions to management, and call masters bluff if not operating within SMS [Safety Management System] or Company guidelines & targets"</i></p> |
| B1.4 Continuous and relatively stable employment contract | <p>Almost all respondents (98%) indicated that they are working under medium and long-term employment contracts. There were however concerns about swings. One respondent working in the Oil and Gas sector of the Australian shipping industry stated of his past employers:</p> <p><i>"I did not expect certain companies to try to influence longer swing periods than the agreement - such as some were doing in the late 90's or 2000's"</i></p> |
| B1.5 Opportunity to be in contact with family on land while at sea (e.g. by phone and internet) | <p>The respondents (98%) stressed that the ability to communicate and be in contact with their families while at sea is a very important part of their career. The most common communication facilities onboard are satellite phone, email and internet (broadband, v-sat, Wi-Fi, etc.). Despite the high percentage of access to communication facilities among respondents, issues relating to costs (especially satellite is prohibitively expensive), slow speed and limited access (bandwidth limit) prevents them from having access to their families to the extent that they would have wanted. Some respondents only had access to emails which is not very conducive for interacting with family members. A corresponding response from one of the respondent is:</p> <p><i>"Very limited/restricted internet access phone cards on this ship work well. but not available on most vessels I have been on"</i></p> |
| B1.6 Career development | <p>With regards to career development, the respondents (98%) felt that shipping industry employers were not doing much in relation to training. The general view is that seafarer training is quite expensive and most at times, the respondents are compelled to pay for the cost of training where it is not directly related to the skill sets needed by the organisation for them. As a result, shipping companies only provide the kind of training their seafarers will need to perform specific tasks rather than taking a systemic approach to career development and training. Some employers have switched to the Computer-Based Training due to the high budgets associated with seafarer training. The limited training means that seafarers are not able to move up the ranks. The frustrations of respondents with lack of training and career development in the industry is reflected in some of the statements provided:</p> |

"If it is a requirement of law, then training will be completed. If it just to better an individual's talents in a field it rarely happens"

"Employers truly don't care about personnel development, unless it will increase revenue and profit for the company"

"Current employer trains at above industry standards. With previous employers it tended to stop at minimum legal standards. Most companies would initially offer additional training until it would hit the budget. Particularly the last 4-5 years, with the GFC [Global Financial Crisis], the training budgets in the industry have come under huge pressure"

"It has been difficult and expensive to gain and maintain qualifications. The lengths of courses are long and difficult to afford especially if you have a family to support. On completing an expensive course there is no guarantee of employment. Ships are registered overseas and employ from third world markets at wages that are below the Australian unemployment benefit. One cannot support a family on that. If you do not find work for that particular qualification's area of operation, after 5 years you get downgraded! How many Lawyers or accountants get downgraded after 5 years of not having completed enough work in a particular area? Sea time! Watch keeping is watch keeping no matter where it is. Coastal or harbour operations has higher traffic densities. Waves are waves. Wax patterns are wax patterns. After 20 years on the deep blue, the sea will not change if I spend 5 years doing harbour work. Why my qualifications should be reduced!"

"There are no genuine opportunities to learn valuable hands on skills like, vessel handling"

"The industry could do a lot more to develop its seafaring talent by providing training and education in career development as it ultimately could and should benefit the industry"

B1.7 Acquisition of transferable skills onboard to broaden career options

The respondents (98%) were of the view that the natures of skills they acquire during training as seafarers limits their career options as they are restricted to only work in the maritime industry. As some explained:

"I think one of my expectations as a young man was that I get more career options from being a master mariner, and I think that is a problem for anyone contemplating a career in the maritime industry. Becoming a lawyer was very much easier and rewarding than obtaining my master's certificate."

B1.8 Experience the available rewards of a seafaring career

One of the key expectations respondents had of their seafaring career was the opportunity to travel and see different parts of the world. However, many indicated that tight working conditions onboard ships and other structural

changes erodes the opportunity for shore leave. As some respondents put it:

“Use of time in port. My expectation was to travel around in different ports. But due to containerisation there was no time. On tankers you are stuck in places where you had limited means of getting off the ship”

Source: Author

APPENDIX L: FACTORS THAT MAY INFLUENCE THE DECISION TO STAY

Personal reasons to continue working onboard ships as a seafarer

| Personal factors | Count | Mean | Rank |
|--|--------------|-------------|-------------|
| D1.5 Maintaining the current ratio of voyage to vacation periods | 187 | 4.43 | 1 |
| D1.1 Relatively good salary compared to landside jobs | 187 | 4.31 | 2 |
| D1.6 Good working relationships with my colleagues onboard | 187 | 4.30 | 3 |
| D1.8 Feeling of being valued by my employer | 187 | 4.24 | 4 |
| D1.9 Having a permanent employment contract | 187 | 4.21 | 5 |
| D1.4 Opportunity to frequently contact my family on land | 187 | 4.02 | 6 |
| D1.7 Good working relationships with my superiors onboard | 187 | 3.97 | 7 |
| D1.2 My ambition to become a ship officer | 187 | 3.35 | 8 |
| D1.3 My ambition to become a ship master | 187 | 3.18 | 9 |

Organisational reasons to continue working onboard ships as a seafarer

| Organisational factors | Count | Mean | Rank |
|--|--------------|-------------|-------------|
| D2.4 Good working conditions onboard | 185 | 4.31 | 1 |
| D2.3 Supportive organisational culture | 185 | 4.14 | 2 |
| D2.5 Good mentorship from superiors onboard | 185 | 3.98 | 3 |
| D2.2 Provision of recreational facilities onboard | 185 | 3.94 | 4 |
| D2.1 Family policies (e.g. medical insurance) | 185 | 3.93 | 5 |
| D2.6 Occasional access to shore leave | 185 | 3.91 | 6 |
| D2.7 Opportunities for training to become a ship officer | 183 | 3.28 | 7 |

Source: Author

APPENDIX M: COMMONALITIES: THE INITIAL EXTRACTION RESULTS

Communalities: The initial extraction results

| | Initial | Extraction |
|---|---------|------------|
| D7.1 Poor working conditions onboard | 1.000 | .597 |
| D7.2 Lack of new and fresh challenges | 1.000 | .437 |
| D7.4 Lack of opportunities for training | 1.000 | .584 |
| D7.5 Lack of opportunities for progression to higher ranks onboard | 1.000 | .621 |
| D7.6 Continual refusal of shore leave during port hours | 1.000 | .476 |
| D7.7 Lack of recreational facilities onboard | 1.000 | .661 |
| D7.8 Dissatisfaction with the employer | 1.000 | .615 |
| D7.9 Lack of a supportive organisational culture | 1.000 | .744 |
| D7.10 Bullying from superiors or workmates onboard | 1.000 | .662 |
| D7.11 Inability to contact family from sea | 1.000 | .616 |
| D7.12 Poor mentoring from superiors onboard | 1.000 | .711 |
| D9.1 Late payment of salary | 1.000 | .735 |
| D9.3 Salary not increasing within an expected period | 1.000 | .584 |
| D9.4 Persistent failure of employer to pay salary due to financial problems | 1.000 | .757 |
| D9.5 Lack of long service bonuses | 1.000 | .666 |
| D9.6 Problems with being granted sick leave | 1.000 | .805 |
| D9.8 Lack of compensation schemes | 1.000 | .654 |
| D9.9 Poor food onboard | 1.000 | .580 |
| D8.1 Jailing of seafarers for operational error | 1.000 | .540 |
| D8.3 Small crew size onboard | 1.000 | .645 |
| D8.4 Too much paperwork to be done per voyage | 1.000 | .570 |
| D8.5 Loneliness while at sea | 1.000 | .691 |
| D8.7 Onboard fatigue | 1.000 | .723 |
| D8.9 Lack of adequate rest | 1.000 | .618 |
| D8.10 Staying long time at sea away from family | 1.000 | .515 |
| D8.11 Too much workload onboard | 1.000 | .725 |
| D8.14 Availability of job opportunities on land | 1.000 | .483 |
| D6.1 To live in a relationship | 1.000 | .619 |
| D6.2 Desire to start a family | 1.000 | .681 |
| D6.3 To care for aging parents | 1.000 | .638 |
| D6.4 Family stress | 1.000 | .567 |
| D6.5 Financial stress | 1.000 | .620 |
| D6.7 Desire to work on land | 1.000 | .527 |

Extraction Method: Principal Component Analysis.

**Truncated SPSS output for the summary of non-redundant residuals available
below the Reproduced Correlation Matrix (full table not shown)**

| | ... | ... | ... | ... | ... | ... | ... |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|
| Residual ^b | -.002 | -.031 | .022 | .007 | -.008 | -.005 | -.019 |
| | .010 | -.052 | .008 | .018 | -.041 | -.065 | .067 |
| | -.054 | .007 | -.093 | -.029 | .040 | -.008 | .018 |
| | .025 | .026 | .012 | -.023 | .067 | -.008 | .058 |
| | -.013 | -.020 | .042 | .002 | .095 | -.023 | .050 |
| | ... | ... | ... | ... | ... | ... | ... |

Extraction Method: Principal Component Analysis.

b. Residuals are computed between observed and reproduced correlations. There are 150 (28.0%) non-redundant residuals with absolute values greater than 0.05.

APPENDIX N: RESULTS OF A 4-FACTOR MATRIX FOR THE EFA

Pattern matrix for the PCA with Promax rotation and a Kaiser normalisation of a 4-factor solutionPattern Matrix^a

| | Component | | | |
|---|-----------|------|------|------|
| | 1 | 2 | 3 | 4 |
| D7.1 Poor working conditions onboard | .738 | | | |
| D7.2 Lack of new and fresh challenges | .651 | | | |
| D7.4 Lack of opportunities for training | .702 | | | |
| D7.5 Lack of opportunities for progression to higher ranks onboard | .770 | | | |
| D7.6 Continual refusal of shore leave during port hours | .506 | | | |
| D7.7 Lack of recreational facilities onboard | .649 | | | |
| D7.8 Dissatisfaction with the employer | .800 | | | |
| D7.9 Lack of a supportive organisational culture | .875 | | | |
| D7.10 Bullying from superiors or workmates onboard | .796 | | | |
| D7.11 Inability to contact family from sea | .600 | | | |
| D7.12 Poor mentoring from superiors onboard | .769 | | | |
| D9.1 Late payment of salary | | .865 | | |
| D9.3 Salary not increasing within an expected period | | .706 | | |
| D9.4 Persistent failure of employer to pay salary due to financial problems | | .832 | | |
| D9.5 Lack of long service bonuses | | .743 | | |
| D9.6 Problems with being granted sick leave | | .856 | | |
| D9.8 Lack of compensation schemes | | .634 | | |
| D9.9 Poor food onboard | | .552 | | |
| D8.1 Jailing of seafarers for operational error | | .624 | | |
| D8.3 Small crew size onboard | | | | .635 |
| D8.4 Too much paperwork to be done per voyage | | | | .846 |
| D8.5 Loneliness while at sea | | | .541 | |
| D8.7 Onboard fatigue | | | | .700 |
| D8.9 Lack of adequate rest | | | | .590 |
| D8.10 Staying long time at sea away from family | | | .536 | |
| D8.11 Too much workload onboard | | | | .770 |
| D8.14 Availability of job opportunities on land | | | | .540 |
| D6.1 To live in a relationship | | | .811 | |
| D6.2 Desire to start a family | | | .876 | |
| D6.3 To care for aging parents | | | .761 | |
| D6.4 Family stress | | | .783 | |
| D6.5 Financial stress | | | .752 | |
| D6.7 Desire to work on land | | | .616 | |

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.^a

a. Rotation converged in 6 iterations.

Structure matrix for the PCA with Promax rotation and a Kaiser normalisation of a 4-factor solution Structure Matrix

| | Component | | | |
|---|-----------|------|------|------|
| | 1 | 2 | 3 | 4 |
| D7.1 Poor working conditions onboard | .757 | | | |
| D7.2 Lack of new and fresh challenges | .521 | | | |
| D7.4 Lack of opportunities for training | .751 | .556 | | |
| D7.5 Lack of opportunities for progression to higher ranks onboard | .772 | .514 | | |
| D7.6 Continual refusal of shore leave during port hours | .667 | .511 | | |
| D7.7 Lack of recreational facilities onboard | .783 | .527 | .541 | |
| D7.8 Dissatisfaction with the employer | .770 | | | |
| D7.9 Lack of a supportive organisational culture | .857 | .517 | | |
| D7.10 Bullying from superiors or workmates onboard | .777 | .570 | | |
| D7.11 Inability to contact family from sea | .750 | .613 | | |
| D7.12 Poor mentoring from superiors onboard | .820 | .598 | | |
| D9.1 Late payment of salary | .522 | .854 | | |
| D9.3 Salary not increasing within an expected period | | .744 | | |
| D9.4 Persistent failure of employer to pay salary due to financial problems | .576 | .860 | | |
| D9.5 Lack of long service bonuses | .519 | .801 | | |
| D9.6 Problems with being granted sick leave | .602 | .894 | | |
| D9.8 Lack of compensation schemes | .597 | .782 | | |
| D9.9 Poor food onboard | .627 | .729 | | |
| D8.1 Jailing of seafarers for operational error | | .701 | | |
| D8.3 Small crew size onboard | .508 | .514 | | .772 |
| D8.4 Too much paperwork to be done per voyage | | | | .727 |
| D8.5 Loneliness while at sea | | | .732 | .671 |
| D8.7 Onboard fatigue | .560 | .516 | | .824 |
| D8.9 Lack of adequate rest | .583 | .521 | | .729 |
| D8.10 Staying long time at sea away from family | | | .672 | .529 |
| D8.11 Too much workload onboard | .509 | | | .841 |
| D8.14 Availability of job opportunities on land | | | .532 | .626 |
| D6.1 To live in a relationship | | | .777 | |
| D6.2 Desire to start a family | | | .812 | |
| D6.3 To care for aging parents | | | .778 | |
| D6.4 Family stress | | | .734 | |
| D6.5 Financial stress | | | .758 | |
| D6.7 Desire to work on land | | | .671 | .504 |

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.
